

# AiroDoctor

**For clean and  
healthy air**

**WAD-M20 air purifier**



PROTECTING HEALTH..... 04

THE SOLUTION ..... 06

AREAS OF APPLICATION ..... 12

FILTER TECHNOLOGY ..... 16

GUIDE ..... 36

FAQ ..... 42

TECHNICAL DATA ..... 44

# Because clean air is healthier

Thanks to the innovative UV LED photocatalytic filter, the **AiroDoctor** removes 99.9% of all viruses, bacteria and odors, without harmful residues.

## Breathe deeply

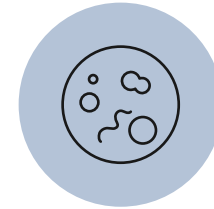
### What do you feel?

In many rooms, we breathe in fine toxic dust, harmful gases, allergenic spores, pollen, infectious aerosols from viruses, and bacteria. More often than you think.

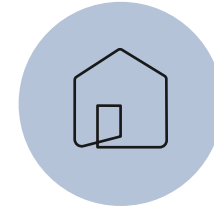
## Clean air for better health



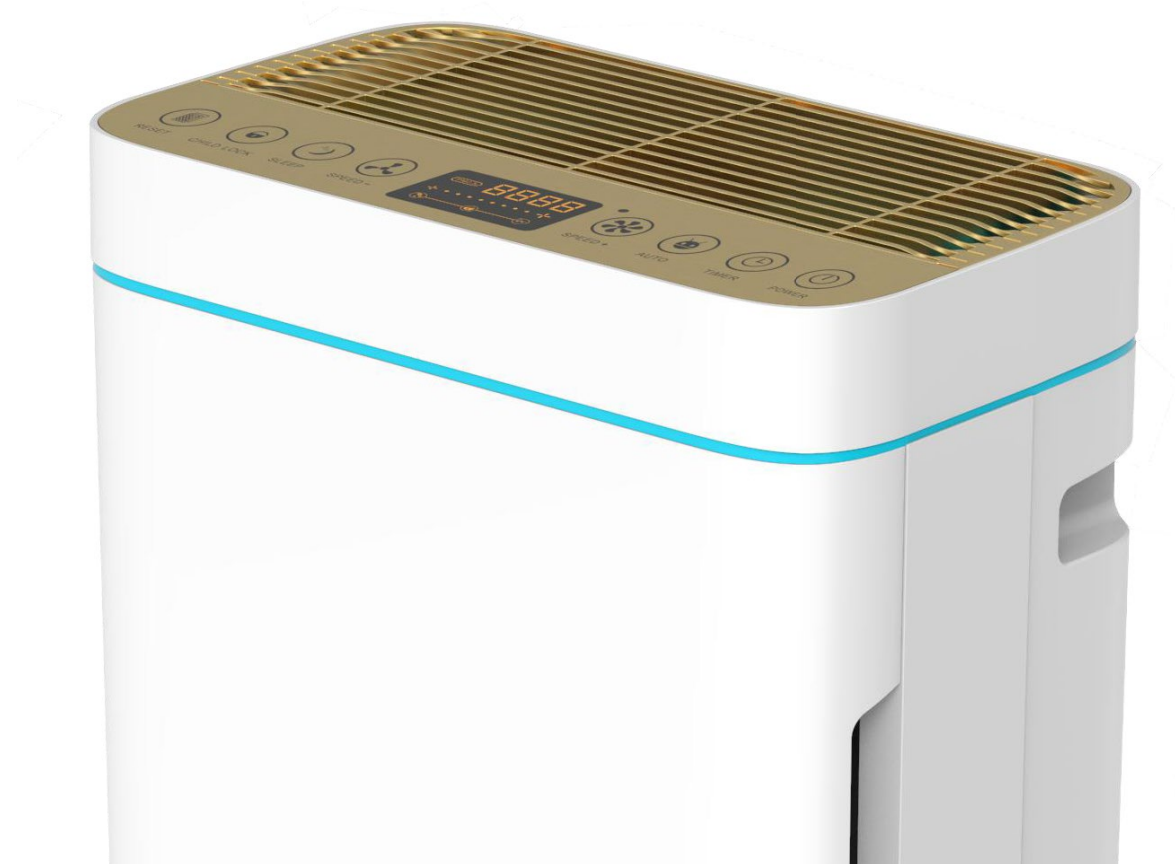
Fine dust, harmful gases and micro emissions from printer cartridges and furnishings are a risk to our health.



Viruses and bacteria in the air can be dangerous to us. Only air purifiers that render germs harmless in the long term will prevent this danger.

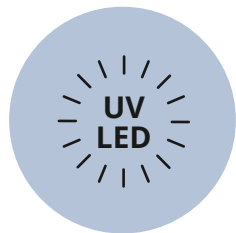


We spend most of our time in closed rooms. Many air conditioning systems also circulate pollutants and pathogens.



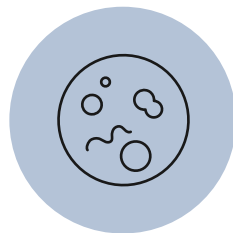
## AiroDoctor is the solution

- ✓ Removes all kinds of smells
- ✓ Permanently filters fine dust and harmful gases from the air in the room
- ✓ For allergy sufferers: eliminates mold spores, pollen and allergens
- ✓ Breaks down germs, bacteria and viruses and makes them harmless
- ✓ Extremely low maintenance and durable thanks to sturdy materials and innovative technology



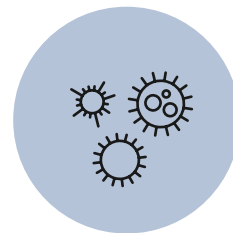
### UV LED technology

Destroys viruses, bacteria and toxic gases.



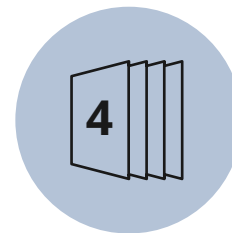
### Removes 99.9% of all germs, smells and spores

Harmful substances in the air don't stand a chance.



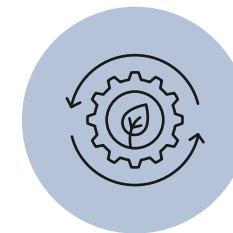
### No odour development

The AiroDoctor breaks down pollutant and germs without any residue.



### Multi-level filter system

The 4-way combination ensures excellent cleaning performance.



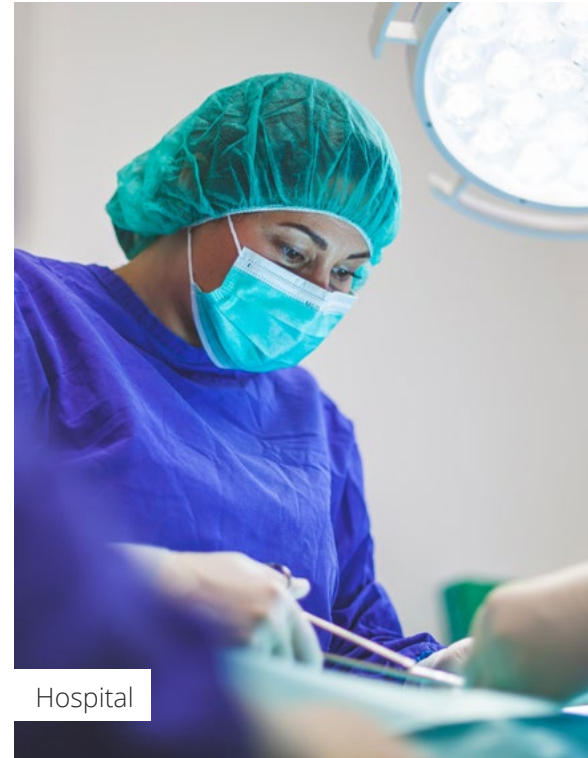
### Environmentally friendly and sustainable

Reduced power consumption, minimal noise and long lasting.



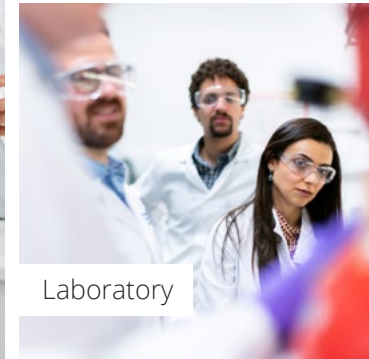
The simple and convenient touch operation allows you to change settings and display necessary information.

- ✓ Timer function
- ✓ Automatic control
- ✓ Air quality display
- ✓ Parental controls
- ✓ Display filter change



## Healthy indoor air is vital

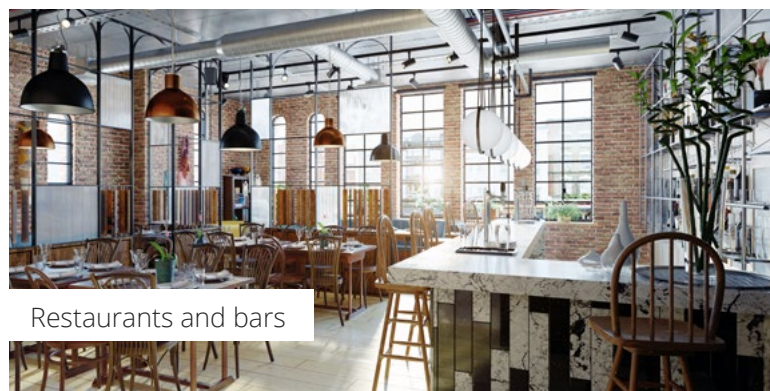
The AiroDoctor adsorbs and neutralizes even the smallest particles with a diameter of 0.1  $\mu\text{m}$ . This makes the AiroDoctor ideal for healthcare facilities such as hospitals, laboratories, retirement homes or medical practices.



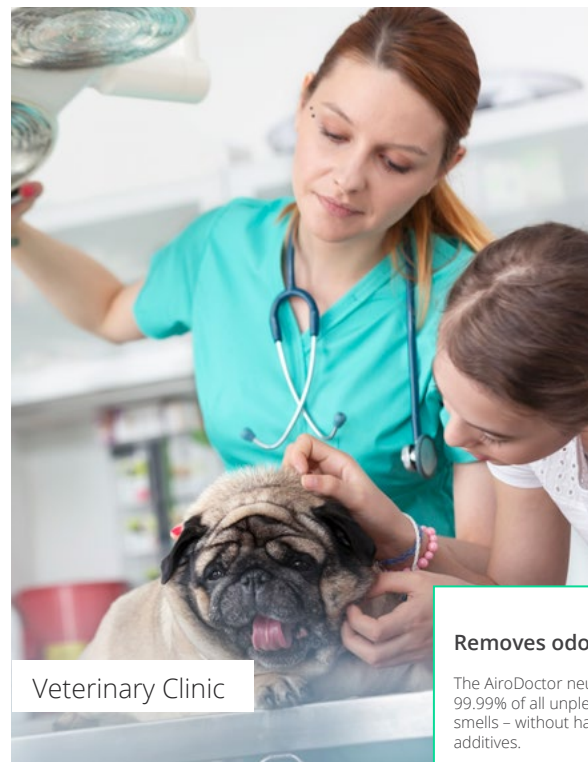




Industry



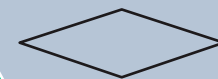
Restaurants and bars



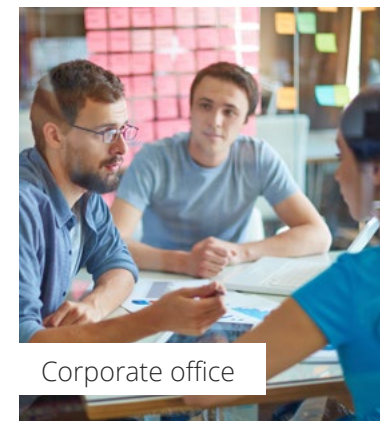
Veterinary Clinic

**Removes odors**

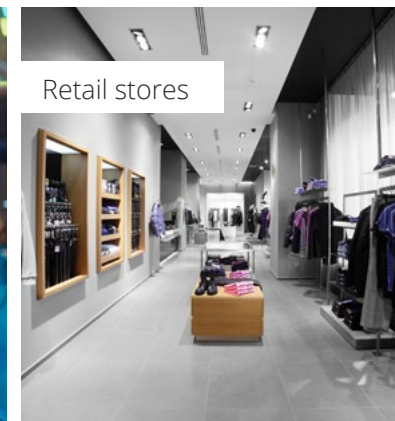
The AiroDoctor neutralizes 99.99% of all unpleasant smells – without harmful additives.

**50-200 m<sup>2</sup>****Great at combating air pollution**

With a CADR (Clean Air Delivery Rate) of 480 m<sup>3</sup>/h, the AiroDoctor is designed for areas up to 200 m<sup>2</sup> and ideally suited to a wide range of applications.



Corporate office



Retail stores



Home

**Cleans quietly**

With a maximum noise level of only 55 dB, the AiroDoctor is also suitable for quiet environments.



There's air  
purifying...  
and there's  
air purifying



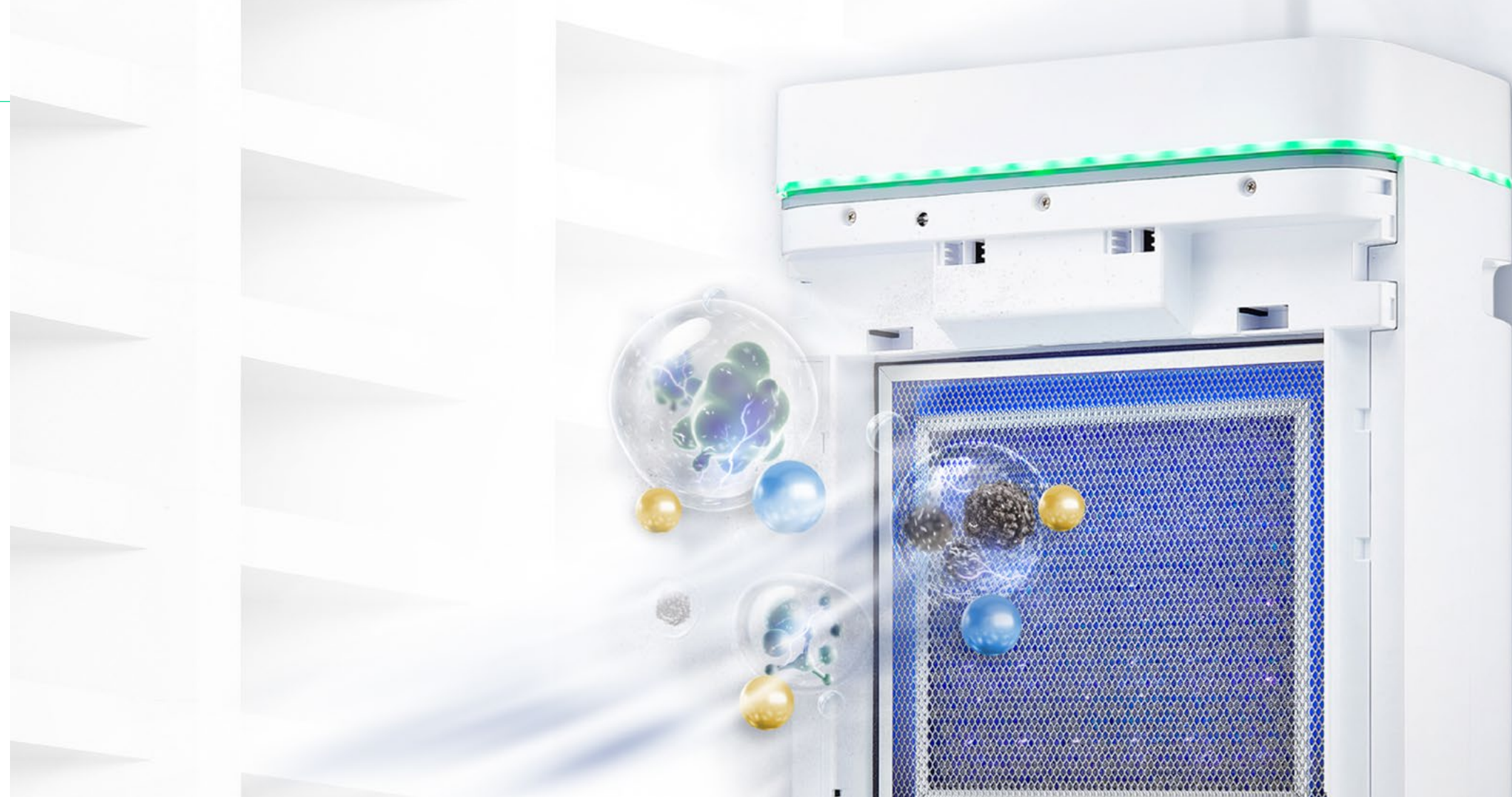
The AiroDoctor is a modern air purifier, with a four-stage filter setup. It uses pre-filters, activated carbon, airborne particle (HEPA) and UV LED photocatalytic filters to filter, decompose and neutralise the entire spectrum of pollutant particles.

## Conventional air purifiers can become a risk

With conventional air purifiers, the filter fabric will sooner or later become saturated with pollutants. This becomes a clear health risk, especially when changing the filter. Not so with the AiroDoctor thanks to UV LED photocatalysis, the absorbed germs are neutralised in the long term. Even the smallest particles, such as viruses are destroyed.

## Filters, destroys, neutralises

Thanks to the 4-stage filter system  
with unique functionality.





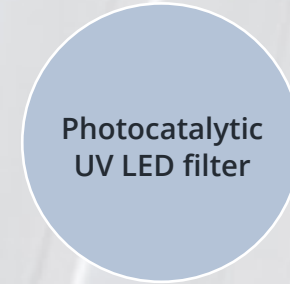
**Pre-filter**



**Activated  
carbon filter**



**HEPA filter**



**Photocatalytic  
UV LED filter**

Effectively adsorbs large particles with a diameter of around 5  $\mu\text{m}$ , such as hair, fibres and dust.

Highly efficient cellular activated carbon neutralises tobacco smoke, chemicals, odours, pollutants and organic compounds.

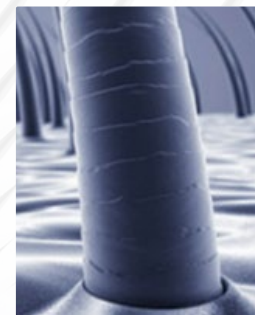
Filters out up to 99.9% of the ultrafine dust particles, pollutants, fungal spores and bacteria (smaller than 0.3  $\mu\text{m}$ ).

Environmentally friendly UV LED photocatalysis technology permanently eliminates harmful gases and substances as well as the smallest viruses and bacteria.

## Pre-filter

## Innovative 4-stage filter system

The coarsest filter, the **Pre-filter**, catches everything that is barely visible to the naked eye: hair, dust particles, dirt particles and dandruff.



Hair

50-70µm



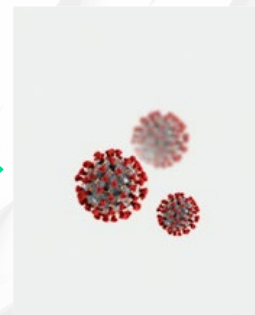
Dust

10µm



Fine dust &amp; gases

0.25µm



Virus

0.1~0.2µm



### Activated Carbon filter

## Combating pollutants with the power of nature

The **activated carbon filter** offers two different cleaning mechanisms: It can filter smaller particles mechanically, and, thanks to oxidation processes, the carbon acts as a reducing agent and absorbs and converts harmful gases such as ozone and chlorine.

### Tough on dirt

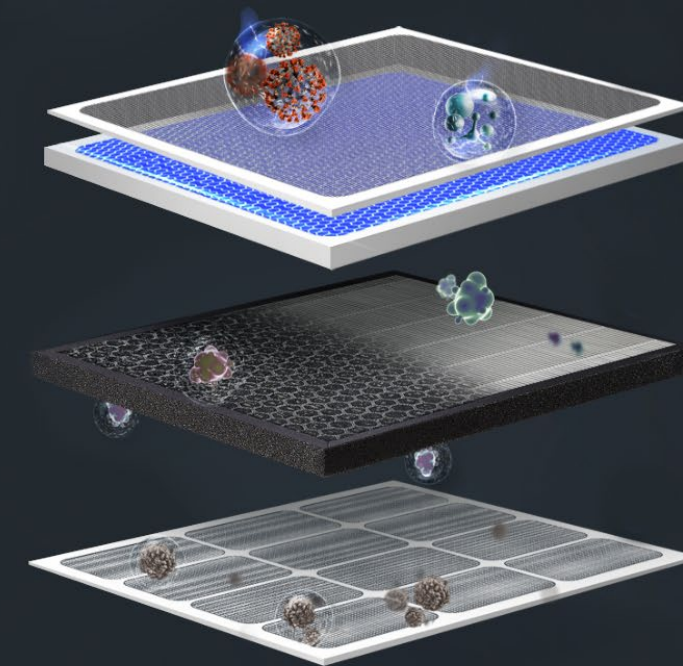
An activated carbon filter can absorb several times its weight in foreign particles. It intercepts and breaks down unpleasant and harmful odours from cigarettes and waste.

Photocatalytic  
UV LED filter

HEPA filter

Activated carbon filter

Pre-filter

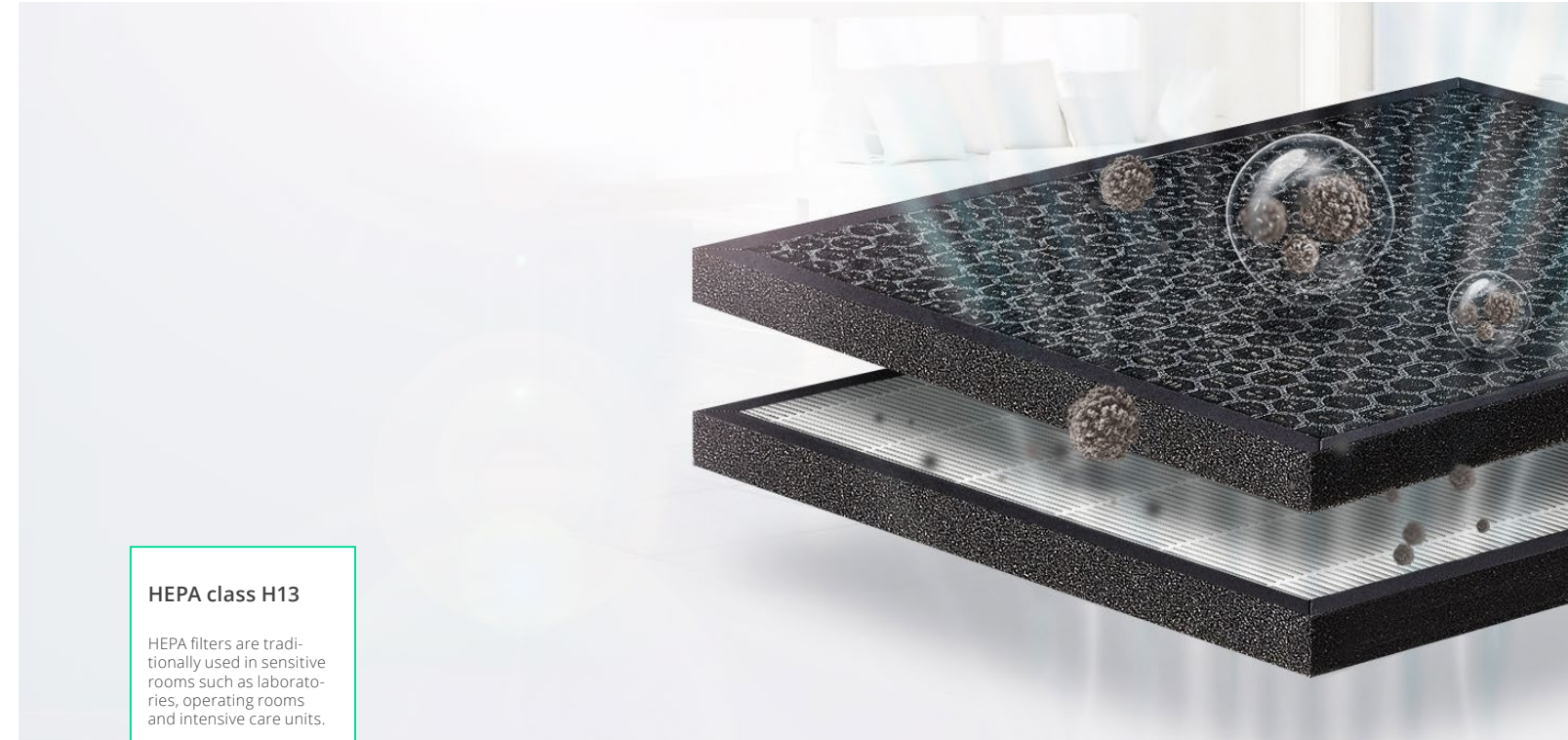




### Airborne particle filter (HEPA)

## Precise filtering

The **HEPA** (High Efficiency Particulate Air) filter particle filter removes particles with a diameter between  $0.3\text{ }\mu\text{m}$  and  $2.5\text{ }\mu\text{m}$  from the air, such as viruses and bacteria, pollen and mite droppings as well as mold spores and gases. The particles get caught in the tightly woven glass fiber mats, which are folded for a greatly increased surface area.



#### HEPA class H13

HEPA filters are traditionally used in sensitive rooms such as laboratories, operating rooms and intensive care units.

### Photocatalytic UV LED filters

## Photocatalysis clean indoor air

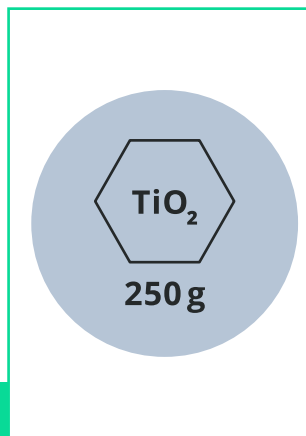
**Photocatalysis** is a chemical reaction triggered by light. Photocatalytic self-cleaning involves the decomposition of organic materials by radiation on surfaces which have been coated with special nanoparticles.



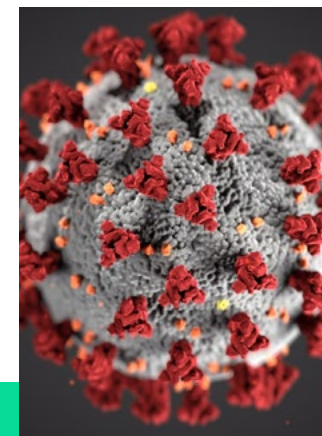
With the unique UV LED photocatalytic filter, the AiroDoctor is able to cover the entire spectrum of harmful pollutant particles. Substance particles are made harmless: germs, odours and hazardous gases don't stand a chance!



Viruses are trapped in droplets of exhaled air and can even move through the air in the form of aerosols. The UV LED photocatalysis technology filters and decomposes even the smallest pathogens.



The photocatalytic filter is not only coated, but consists of 250 grams of solid titanium dioxide ( $\text{TiO}_2$ ). It is the only filter of its kind, and thanks to its large surface effect, it is particularly low-wear and durable.



Thanks to its fine-pored structure, the AiroDoctor not only keeps PM2.5 particles, but also the air flow inside the device for longer. The intentionally increased time in the filter ensures a longer and more effective radiation time for the substances to be destroyed.



## How it works

Thanks to its fine-pored structure, the Airo-Doctor not only keeps the pollutant particles, but also the air flow inside the device for longer. The intentionally increased time in the filter thus ensures a longer and more effective irradiation time for the substances to be destroyed.

### Studies

In Studies at the US National Institute of Health in Hamilton, Montana, researchers have demonstrated the stability of the two SARS coronaviruses SARS-CoV-1 and SARS-CoV-2. They show that, the aerosols can stay in the air for an average of 2.74 hours and thus pose an increased risk of infection.



### Infectious aerosols

A study by the Université Laval in Québec, Canada (Clinical Infectious Diseases, 2015) shows that certain viruses can still be detected in the air for a long time. The research group examined the air at different locations during outbreaks of norovirus in eight health facilities. The samples from the hospital room (one metre away from the patient) were 54 percent positive.



## Effectiveness scientifically approved

Intensive tests carried out by international research institutes have finally demonstrated the effectiveness and benefits of photocatalytic filter technology: both influenza and coronaviruses, 99% of rota- and noroviruses as well as E. coli, salmonella and bacteriophages are either destroyed or rendered harmless.

### Use in the fight against SARS-CoV-2

The South Korean research institute Korea Institute of Civil Engineering and Building Technology (KICT) has been developing photocatalytic filter systems since 2016. These were installed in emergency medical centers at the outbreak of the coronavirus crisis, where they have been shown to reduce the germ load. [Kict.re.kr](http://Kict.re.kr)



Unique combination

The AiroDoctor is equipped with a filter combination that combats the entire spectrum of air pollution. The pre-filter, airborne particle (HEPA) and activated carbon filter as well as the UV LED photocatalytic filter run at full power against dust particles, odors, bacteria and viruses for clean and sustainable results.

	Beginner air cleaner	Middle-class air cleaner	Professional air cleaner	AiroDoctor air cleaner
Pre-filter (coarse particles, dust, hair)	✓	✓	✓	✓
HEPA filter (HEPA) (fine dust, pollen)	✓	✓	✓	✓
Activated carbon filter (Smells, gases)		✓	✓	✓
UV LED / Titanium dioxide coated (bacteria, viruses, harmful gases)			✓	✓
UV LED / Solid titanium dioxide material (bacteria, viruses, harmful gases)				✓



## Bad air in the workplace: health risks with consequences

Even workplaces without production-related pollution can have harmful indoor air – without the knowledge of employers and employees.

Years of exposure initially lead to unspecific allergic reactions in the respiratory tract and on the skin. It can develop into asthma that goes unnoticed for decades and, ultimately, into serious lung and cancer diseases. The building material asbestos has sadly become well-known in recent decades, and contaminated buildings and premises still have to be demolished or renovated with great effort. Other – mostly undetected - pollutants include toxic emissions from carpets and linings, such as formaldehyde or microfibers. Mold spores, especially in old buildings or in libraries, also represent a clear risk of illness in the workplace.



The cleaning performance of the AiroDoctor is designed for rooms up to 200 square meters, and its quiet operating volume does not disturb everyday work. Thanks to its powerful four-stage filter setup, the AiroDoctor adsorbs fine dust, microfibers, pollen and spores and neutralizes unpleasant odors and harmful gases. With the help of the innovative UV LED photocatalytic filter based on titanium dioxide, it destroys even the smallest viruses and bacteria, without toxic residues, in a sustainable and environmentally friendly manner. Because only a healthy workplace is a good workplace.



## Germ-free indoor air is crucial for health

In medical practices, pharmacies and nursing facilities, staff, visitors and patients are at higher risk of infection. Infectious aerosols are a critical variable in closed rooms.

As we know, the new coronaviruses are transmitted mainly via droplet infection, although smear infection is considered to be less common, but still possible. The spread of viruses in the form of infectious aerosols was demonstrated in 2015 by the Université Laval in Québec using the norovirus, as well as in a current study from 2020, which was carried out by the National Institute of Health in the USA and confirmed by scientists from Princeton University and the University of California. Accordingly, coronaviruses remain viable in the air for up to 3 hours after aerosolization, thereby creating an acute risk of infection for all people in waiting areas, outpatient clinics, medical practices and hospitals.

The AiroDoctor is a compact and powerful air cleaner with industrial quality. It is fitted with a four-stage filter

combination and uses a pre-filter, activated carbon and particle filter (HEPA) to adsorb 99.9% of all pollutant particles, gases, smells, bacteria and viruses. The fourth filter in the AiroDoctor is an innovative UV LED photocatalytic filter that decomposes and neutralizes the particles that have accumulated in the filters. This happens without harmful residues, and is sustainable and environmentally friendly. Intensive tests have finally demonstrated the effectiveness and benefits of photocatalytic filter technology.

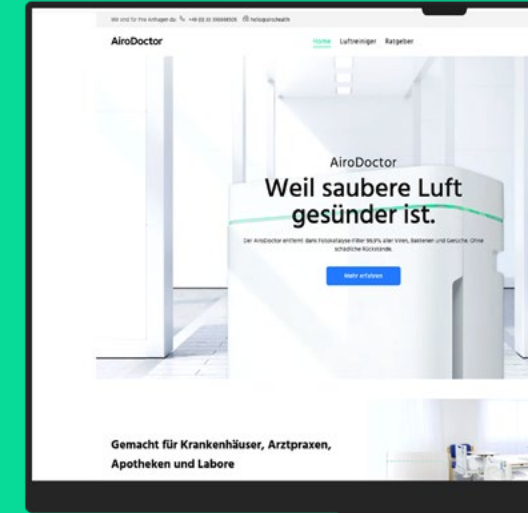
The Japanese Kitasato Institute for Medical Research and South Korean Institute of Civil Engineering and Building Technology confirm that 99.9% of E. coli, Salmonella, bacteriophages, rotaviruses, noroviruses, influenza and coronaviruses are either destroyed or rendered harmless.



## Tough on odours

Activated carbon filters are widespread: They are often used in ventilation systems, respiratory masks or in dressings for infected wounds.

Thanks to the AiroDoctor, annoying odours within veterinary practices can now also be eliminated. The excellent effect destroys animal smells in closed rooms immediately after they appear. The AiroDoctor not only fights odours in the animal environment; it is also particularly suitable in nursing homes and senior centers, where incontinent patients as well as storage rooms for used laundry pose an odor nuisance for the entire facility. The AiroDoctor makes carefree coexistence possible again without those troublesome odours.



Want to know more?

More guides are  
available online  
[www.airo.health](http://www.airo.health)

**Which air impurities, pollutants and pathogens can the AiroDoctor filter?**

The AiroDoctor filters the majority of all air impurities such as hair, dirt and fine dust and breaks down and neutralizes 99.99% of all smells, harmful gases, bacteria (e.g. E. coli and multi-resistant germs) and viruses (e.g. influenza and coronaviruses).

**What is photocatalysis?**

Photocatalysis is a chemical reaction triggered by light. Titanium dioxide (TiO<sub>2</sub>) is irradiated with UV light, which causes all organic compounds on this surface to die.

**What are the advantages of the AiroDoctor?**

The AiroDoctor is a modern and environmentally friendly air cleaning system. It is suitable for commercial and public institutions, but also for private use.

Thanks to the photocatalytic filter system based on titanium dioxide, the entire spectrum of harmful substances can be filtered from the air and neutralized, without harmful residues. The AiroDoctor has a low energy consumption during operation and works at a pleasant noise level.

**Can the AiroDoctor also be used against influenza and the coronavirus?**

Yes. The AiroDoctor breaks down and neutralizes even the smallest particles with a diameter of 0.1 µm. At the same time the AiroDoctor does not produce any by-products and does not release harmful substances into the environment, such as Ozone.

**Can the AiroDoctor also neutralize unpleasant smells?**

Yes. The AiroDoctor neutralizes 99.99% of all unpleasant smells. This process performed out by the activated carbon and photocatalytic UV LED filters, in which microorganisms are rendered harmless by the irradiation of the titanium dioxide. The AiroDoctor is therefore suitable for healthcare facilities or for offices and industrial plants. It is also used effectively in veterinary practices.

**Is the AiroDoctor suitable for allergy sufferers?**

The AiroDoctor is ideal for allergy sufferers. Pollen, dust mite droppings and mold spores are filtered out and rendered harmless. The AiroDoctor needs 1-3 days to clean the room for the first time (depending on the room size and degree of



We are happy to answer your questions about AiroDoctor!

Andrea Guerra  
+49 (0) 30 398868502  
europe@airodoctor.com

or online:  
[www.airodoctor.com](http://www.airodoctor.com)

pollution. Afterwards, unlike other filter systems, it keeps the air stable and permanently clean.

**How often do I have to change the filters on the AiroDoctor?**

The pre-filter should be vacuumed every two months with a standard vacuum cleaner, and the activated carbon and airborne particle filters (HEPA) should be changed every 6-12 months. The UV LED photocatalyst filter made of 250 g solid titanium oxide material has hardly any wear and thus has a virtually unlimited lifespan.

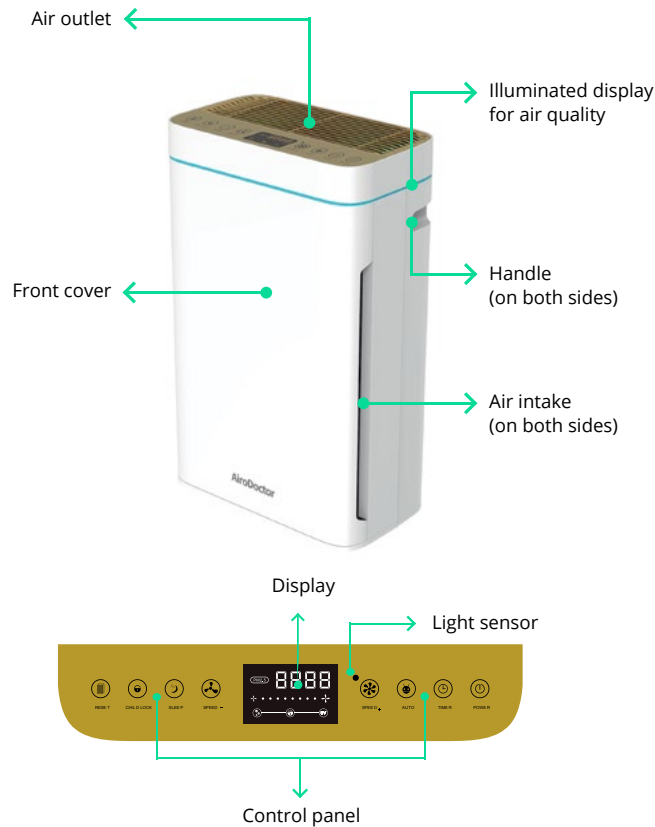
**What distinguishes the AiroDoctor from conventional filter systems?**

In addition to the excellent cleaning performance provided by the graduated filter system, the AiroDoctor is incredibly effective thanks to its ability to kill the

smallest organic particles such as bacteria and viruses and destroy odors and pathogens.

**Is there any risk of infection from the filter?**

With conventional air cleaners, sooner or later the filter fabric will become saturated with pollutants. This poses an increased health risk, especially when changing the filter. This is where the AiroDoctor differs fundamentally: thanks to UV LED photocatalysis, the germs in the filter are in the long term. Even the smallest particles, such as viruses, are destroyed.



## Downloads

- Press release
- Studies & test results
- Data sheet
- Operating manual



<https://airodoctor.com/resources>

Product Name	<b>AiroDoctor</b> Air Purifier
Model Name	WAD-M20
Cleaning Area	50-200 m²
CADR (Clean Air Delivery Rate)	480 m³/h
Noise (max.)	55 dB
Filter Type	Pre-filter, HEPA filter, activated carbon filter, photocatalytic UV LED filter with 250 g solid titanium dioxide material
HEPA Filter Grade	H13
Wind Speed	1 ~ 8 steps
Timer	12 hours (max.), Set up in 1 hour increments
Filter Replacement Notice	Yes
Indicator Light of Air Quality	4 steps; Good (Green), Average (Blue), Yellow (Bad), Red (Very Bad)
Energy Efficiency	4 grade
Recommended Voltage	110-230V AC Voltage 50/60Hz
Power Consumption	85 W
Weight	11.5 kg
Outline Dimensions	400 (W) × 230 (D) × 640 (H) mm



**AiroDoctor** is a brand of:

**ScreenSource GmbH**

Koethener Str. 8

06779 Raguhn-Jessnitz GERMANY

**Phone:** +49 (0) 30 39886850

**E-mail:** [europe@airodoctor.com](mailto:europe@airodoctor.com)

**Web:** [www.airodoctor.com](http://www.airodoctor.com)

**Commercial register:** HRB 24520

**Register court:** Stendal

**VAT information:**

VAT identification number

According to § 27 a sales tax law:

DE311493511