

i-air<sup>®</sup>

# Your well-being is in the air



faster



cleaner



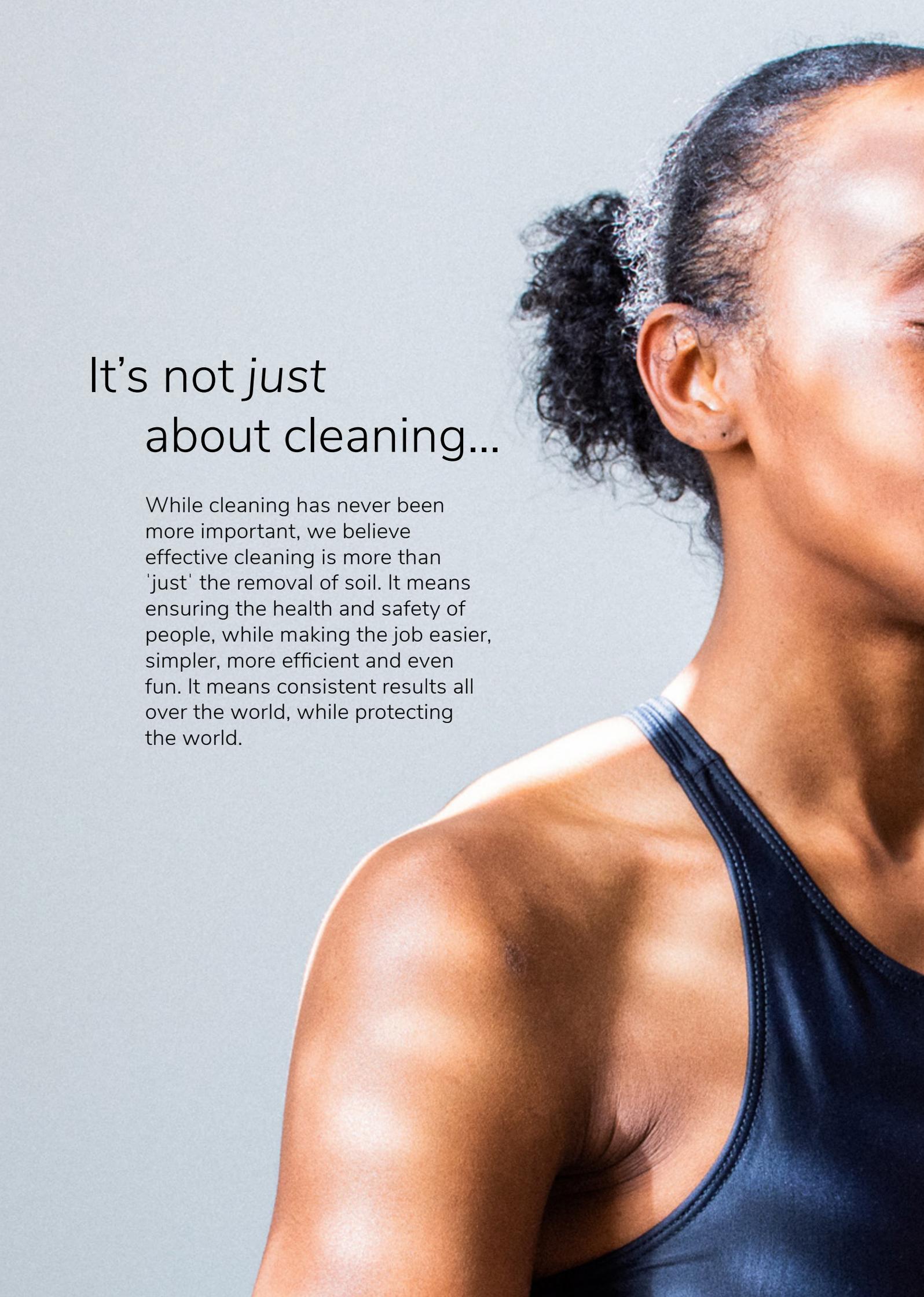
greener



safer



better



## It's not *just* about cleaning...

While cleaning has never been more important, we believe effective cleaning is more than 'just' the removal of soil. It means ensuring the health and safety of people, while making the job easier, simpler, more efficient and even fun. It means consistent results all over the world, while protecting the world.

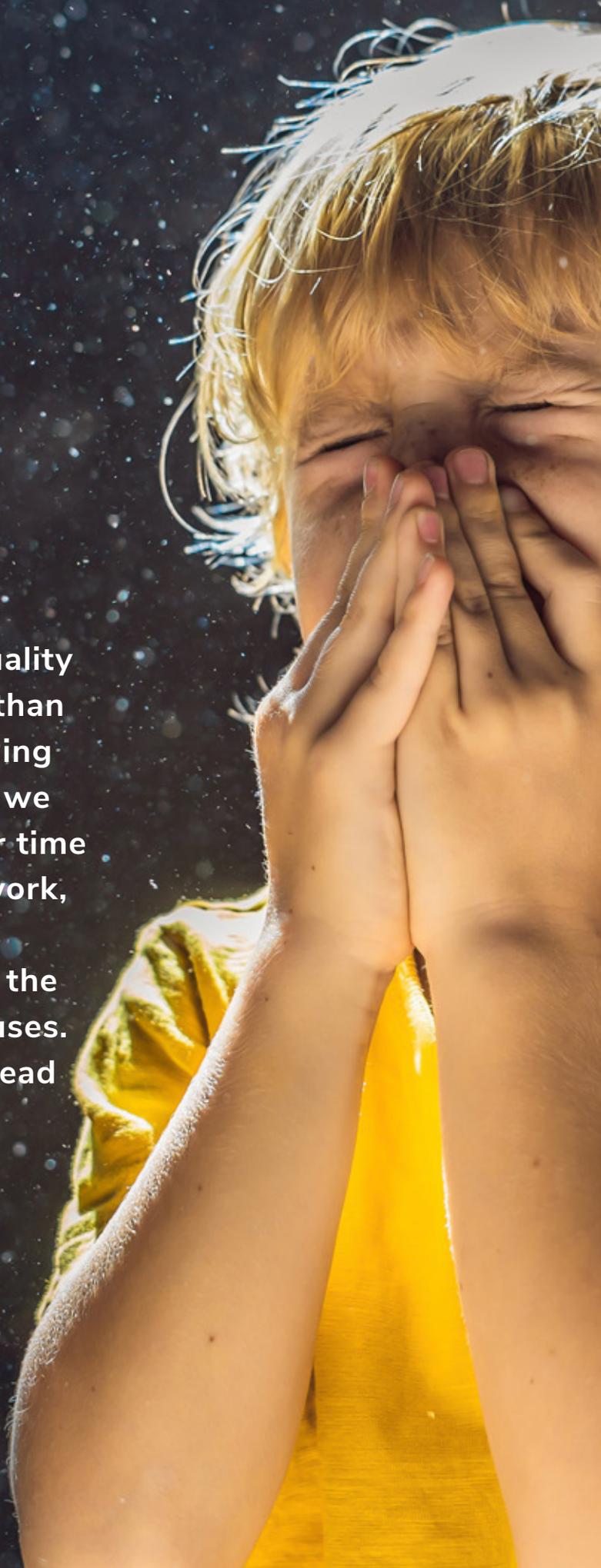


## ...It's about *happy* & *healthy* people

i-air ensures a lot of happy faces and healthy people, thanks to its remarkable ability to filter the tiniest particles from the air (yes, even COVID-19 gets neutralized). Bonus is that the airflow creates a continuous stream of fresh air, which benefits the mood and productivity of people present.

# There's a threat in the air Take a breath

Did you know that indoor air quality can be up to 5-10 times worse than outdoor air quality? Not something to take lightly, considering that we spend an average of 90% of our time indoors. The rooms where we work, cook, clean, shower, and sleep, are possible points of origin for the spread of contaminants like viruses. And in our current time, the spread of COVID-19.





# Destroy the virus

## A breath of fresh air

Ventilation is known as an efficient way to create a safe, virus-free environment. But ventilation alone is not enough. Besides the fact that it boosts your energy bill during colder days, it doesn't filter aerosols out of the air. In other words: viruses can still spread.

**But there's a solution.** Air purification does filter aerosols out of the air, resulting in a perfectly clean, healthy, and fresh indoor environment. And if our indoor air quality indeed is 5-10 worse than the quality of outdoor air, wouldn't you want to know what the dangers are and how we can do something about this? After all, clean air is not only of importance during a pandemic. It should be on our mind every day.

### How to kill a virus



Wash hands



Clean surfaces



Clean the air

# Stop the spread

## About aerosols

There's more and more research available about the link between aerosols and COVID-19. For instance, in an article from Time<sup>1</sup> it's stated there are 3 ways the virus spreads:

- 1. Through fomites**, objects that are contaminated with the virus (which could include someone else's skin)
- 2. Through droplets**, small bits of saliva or respiratory fluid that infected individuals expel when they cough, sneeze, or talk
- 3. Through aerosol** – sometimes referred to as 'airborne' – transmission, which is similar to droplet transmission, except that the bits of fluid are so small that they can linger in the air for minutes to hours (up to three hours according to The New England Journal of Medicine)<sup>2</sup>.

### The spread of aerosols explained

Imagine a room where someone smokes. If you were standing on the other side of the room, you would inhale significantly less smoke - if the room would be properly ventilated. But in a poorly ventilated room, the smoke will accumulate, and people in the room may end up inhaling a lot of smoke over time. And that's how we allow the virus to spread.

1 <https://time.com/5883081/covid-19-transmitted-aerosols/>  
2 <https://www.nejm.org/doi/full/10.1056/NEJMc2004973>

# There's more in the air It doesn't stop with viruses

When we think of cleaning, cleaning the air surely isn't the first thing that comes to mind. But it should. We inhale about 11.000 litres of indoor air per day<sup>3</sup>. Considering people on average spend around 90% of their time indoors and you can imagine all the possible risks. Indoors, we're exposed to hundreds of different contaminants in three categories:



## **Particulate matter**

A mixture of solid and liquid particles, which includes dust, dirt, soot, smoke, and drops of liquid. General sources of particulate matter pollutants are heavy industrial pollution and vehicle exhaust fumes.



## **Volatile Organic Compounds (VOCs)**

A group of gaseous contaminants emitted from solids and liquids<sup>4</sup>. General sources of VOCs are a wide range of regularly used products such as; paints, cleaning detergents, building materials, cosmetic products and pesticides.



## **Microbiological contamination**

These are mainly bacteria, viruses and moulds. Sources are numerous; waste containers, pets, kitchens, hazardous microbes in hospitals and many, many more.

<sup>3</sup> <https://search.proquest.com/openview/bc12f532355150f75fed9d907fec06a7/1.pdf?pq-origsite=gscholar&cbl=33544>

<sup>4</sup> [https://www.cdc.gov/air/particulate\\_matter.html](https://www.cdc.gov/air/particulate_matter.html)

Love is  
in the air.  
So are  
viruses.

# The benefits of clean air

## ✓ Improved productivity

breathing better air leads to better performance<sup>6</sup>

## ✓ Less absenteeism

e.g. asthma, allergies, viruses

## ✓ Improved company image

a fresh environment without stale or nasty smells

## ✓ Fresh air gives more energy

while stale air results in fatigue and headaches

## ✓ A positive and healthy environment

where everyone feels happy and comfortable

The quality of the air has a direct impact on everyone who uses or visits an indoor space. Poor indoor quality can result in allergic reactions, asthma attacks, and virus transmission. Moreover, an unpleasant smell immediately tells our senses that a space is unclean and stale air can even negatively impact our mood or result in headaches and fatigue. It doesn't do much for your company image either.

A study from Harvard, Syracuse en SUNY Upstate Medical University states that employees in environments with clean indoor air quality scored 61% higher on cognitive function<sup>5</sup>. But even without such research we can state the obvious. It benefits everyone in the room if dust, allergens, viruses, nasty smells, and VOCs are removed from the air.

# The impact of bad air quality

## X Brain

Decreased cognitive functions and creativity, headaches and migraines, memory impairments.

## X Heart

Arrhythmia, increased risk of heart attacks, strokes, chronic heart dysfunction.

## X Lungs

Asthma, respiratory tract irritations, dyspnoea, lung cancer.

## X Liver

Chronic liver dysfunctions.

## X Kidneys

Glomerulonephritis, general damage and dysfunction.

## X Other

Eyes, nose and skin irritation, fatigue, dizziness, allergies.

About 20% of all Europeans suffer from respiratory allergies<sup>7</sup>, while over 30 million of Europeans have asthma<sup>8</sup>. These people are directly disadvantaged in a room with poor air quality. But our health can be impacted in more ways.

5 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4661675/>

6 <https://www.bizjournals.com/bizjournals/how-to/human-resources/2019/07/fresh-air-improves-productivity-and-your.html>

7 <https://www.efanet.org/images/2012/07/EFA-Book-on-Respiratory-Allergy-Dutch.pdf>

8 <https://euobserver.com/health/142520>

# One easy solution **i-air PRO**



It's clear that we need to breathe clean and healthy air to improve our living conditions and health. That's why we designed the i-air PRO: a high capacity air healer that improves indoor air quality in medium to large spaces of up to 500m<sup>2</sup>.

i-air PRO filters out solid contaminants, breaking down all VOCs and neutralising all living harmful microbes - including viruses. In short: **it delivers the best air you can breathe indoors.**

# A defence shield for clean air

## How it works

### STEP 4: Powerful fan

A powerful fan creates a perfect air flow through the machine and blows cleaned air back into your environment.

### STEP 3: H14 HEPA filter

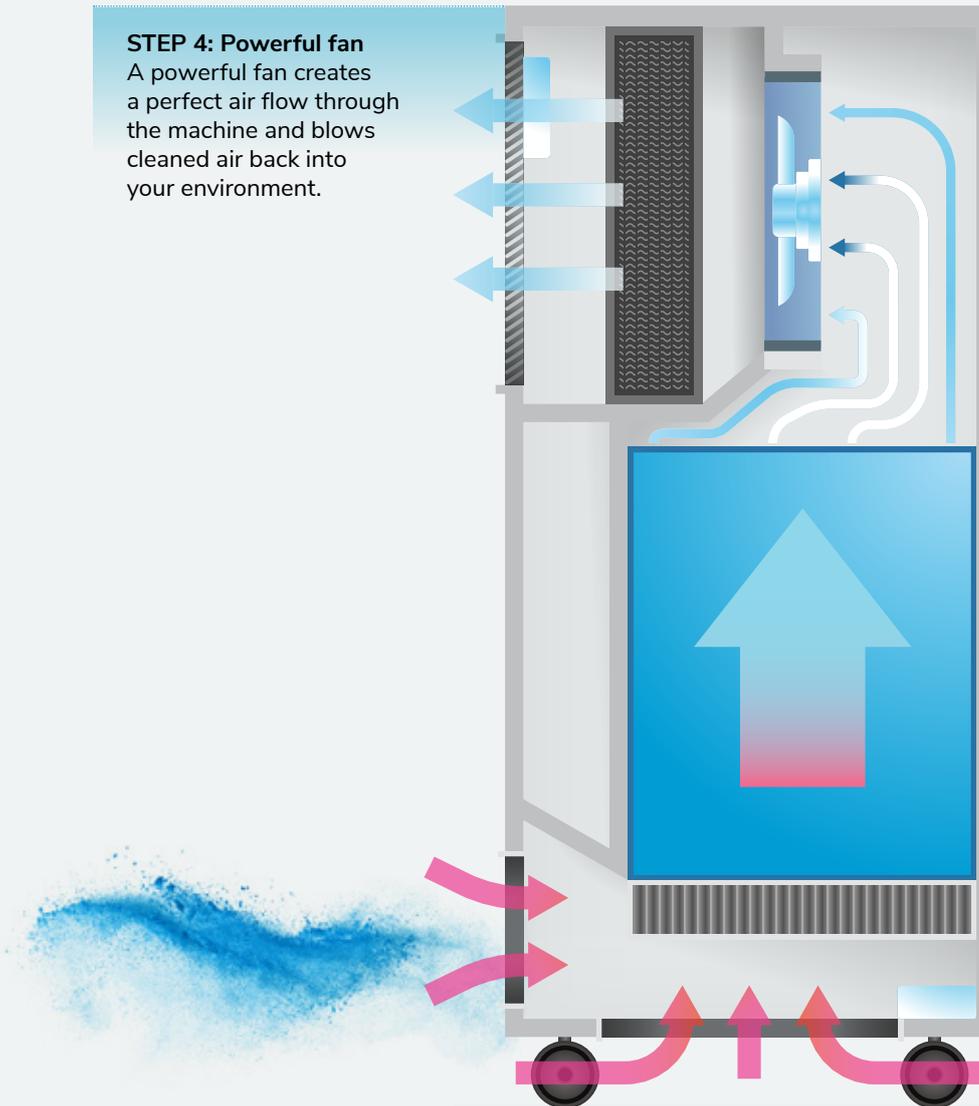
The second filter is a high grade self cleaning (H14) HEPA filter. It collects all the neutralised residue ( $\geq 0,2\mu$ ) of bacteria, viruses and other micro-organisms.

### STEP 2: UV-C chamber

The air stays for a full 2 seconds in a UV-A & UV-C neutralization chamber. Which destroys and neutralises all microbes and viruses with a neutralisation rate of  $\geq 99,9999\%$  and  $\geq 95-97\%$  for microbes

### STEP 1: Carbon Pre-filter

Air enters and goes through the pre-filter with active carbon. It takes out large particles, also known as PM10 (dust, pollen, mold etc.)





### **Faster**

The high air volume output delivers clean air to large spaces (up to 500m<sup>2</sup>) and does this much faster than comparable products.



### **Cleaner**

The i-air PRO delivers purified air based on a unique combination of filter technology and a neutralizing UVC chamber.



### **Greener**

The i-air PRO is equipped with long lifespan filters, which reduces waste. Thanks to smart technology the i-air only needs low power consumption.



### **Safer**

People in the room are protected from exposure to all dangerous types of contaminants.



### **...and better for everyone!**

Improved air quality leads to higher productivity - not to mention health and well-being benefits for the people present in the room.



Reduces  
99.9% of  
pathogen in  
1 hour



## Breathe the difference **Guaranteed healthy air**

The i-air PRO is proven to remove  $\geq 99.9\%$  of airborne pathogens in laboratory tests. A Microbial Reduction Rate Test was performed at an official microbiological laboratory. Testing showed that the i-air PRO air healer was tested for its ability to remove airborne viruses and eliminate harmful bacteria. The i-air PRO showed  $\geq 99.9\%$  reduction of viruses, molds and bacteria that lead to MRSA, sepsis, and black mold after 1 hour.

### **Testing conditions:**

- Tested to GB/T 18801-2015 standard
- 30m<sup>2</sup> test room
- 1 hour to remove 99.99% of bacterial and 99.9% of viral pathogens

# Discover the benefits for your facility

The i-air PRO is the only stand-alone unit on the market that delivers MERV19 class air to medium to large spaces. Minimum Efficiency Reporting Value (MERV) is an assigned rating according to the ability to filter out large particles. MERV19 means that even the smallest particles ( $\geq 0,2\mu$ ) of bacteria, viruses and other micro-organisms are filtered.

In short: you create healthy, clean, and fresh airflow in your facility. Discover the many benefits for a variety of spaces, including fitness clubs and sport venues, office spaces, hospitals and clinics, education facilities, hotels and restaurants.

Facility	Indoor air challenges	Improvements using i-air PRO
 <p><b>Hospitals and clinics</b></p>	<ol style="list-style-type: none"> <li>1 High number of patients, with health issues in small waiting areas</li> <li>2 High risk of cross contamination by patients and visitors</li> <li>3 High VOC level due to use of cleaning and disinfection chemicals</li> <li>4 Dangerous working place for personnel due to high air contamination</li> </ol>	<ol style="list-style-type: none"> <li>1 Cross contamination risk reduction</li> <li>2 VOC reduction</li> <li>3 Reduced exposure to harmful pathogens</li> <li>4 Lower personnel absenteeism rate</li> <li>5 Increased comfort in workplace</li> <li>6 Healthy environment = higher profits</li> <li>7 Destroys all airborne microbes, incl. CoV2</li> </ol>
 <p><b>Fitness clubs and sport venues</b></p>	<ol style="list-style-type: none"> <li>1 A lot of people in small spaces</li> <li>2 People breathe out excessive dirty air &amp; sweat</li> <li>3 High VOC level, due to use of chemicals and sanitisers</li> <li>4 Typical fitness club smell</li> <li>5 Clients expect high standards</li> </ol>	<ol style="list-style-type: none"> <li>1 Neutralisation of microbiological contamination</li> <li>2 VOC reduction and ionisation of indoor air</li> <li>3 Healthy air for healthy clients</li> <li>4 Safety for all clients and personnel</li> <li>5 Elimination of unpleasant smells</li> <li>6 Higher standards = higher profits</li> <li>7 Clean and healthy air</li> </ol>
 <p><b>Office rooms and open spaces</b></p>	<ol style="list-style-type: none"> <li>1. Long hours spent indoors, in closed spaces</li> <li>2. Contamination brought in from outside</li> <li>3. People are a source of harmful pathogens</li> <li>4. VOC contamination caused by cleaning chemicals, air fresheners etc.</li> <li>5. Contamination/dust created by office equipment</li> <li>6. High absenteeism rate due to inadequate IAQ</li> <li>7. Low productivity due to poor IA</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean and healthy air</li> <li>2. Higher efficiency and productivity</li> <li>3. Lower absenteeism rate</li> <li>4. Higher office building rating (Merv19)</li> <li>5. Clean and healthy indoor air is an important WELL certification requirement</li> <li>6. Elimination of unpleasant odours</li> <li>7. Clean air as market competitive advantage</li> </ol>
 <p><b>Schools, universities, kindergartens</b></p>	<ol style="list-style-type: none"> <li>1. A lot of people in small spaces</li> <li>2. High concentration of different contaminants.</li> <li>3. Exposure risk to all</li> <li>4. Lower hygienic awareness</li> <li>5. High contamination level affects cognitive functions, creativity</li> <li>6. High VOC level due to cleaning chemicals</li> <li>7. Old buildings with low quality ventilation, resulting in additional contamination</li> </ol>	<ol style="list-style-type: none"> <li>1. Fewer infections and lower absenteeism</li> <li>2. Less allergens = fewer allergy reactions</li> <li>3. Low VOC level = higher cognitive functions</li> <li>4. Comfortable working environment for teachers</li> <li>5. Clean air reassures parents: safer place for their children</li> <li>6. Clean air is a must in our 21st century education systems</li> </ol>
 <p><b>Hotels and Restaurants</b></p>	<ol style="list-style-type: none"> <li>1. A lot of different guests increases air contamination</li> <li>2. High contamination level due to cleaning chemicals, kitchen fumes and other agents</li> <li>3. Dangerous VOC levels due to frequently used air fresheners</li> <li>4. Increased risk of microbiological contamination in places people spend more time indoors</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean air has the market advantage</li> <li>2. Increased customer satisfaction</li> <li>3. Healthy air in restaurants attracts more customers</li> <li>4. Cross contamination risk reduction</li> <li>5. Safer and better working place</li> <li>6. Reduction of unpleasant odours</li> <li>7. Clean air is an important WELL certification requirement</li> </ol>

## Technical specifications



Power requirement	230V 50/60Hz
Energy consumption, 4 fan speeds	Low 370W, Medium 400W, High 430W, Max 470W
Dimensions	1273x684x334/1328x794x444 mm
Weight	75kg
Fan motor	AC 230V, long lifespan, non-stop use OK
Control Panel	20 character, 4-line LCD display encoder
Air output (Low-Max)	200-600m <sup>3</sup> /h
Housing material	Metal
Noise Level, 4 fan speeds	Low 35dB, Medium 55dB, High 58dB, Max 61dB
EN 1822 filter classification	HEPA H14 ≥99,999%
Main HEPA filter life	H14 - average up to 24 months, with 24/7 operation, pressure sensor will indicate when filter needs replacement
PM particle filtration at ≥0,3μ (H14)	≥99,999%
VOC reduction (TVOC)	≥95-97%
Microbiological contamination reduction level	≥99,9999%
Output air quality, Merv standard	Merv 19
Recommended room size	250-500m <sup>2</sup> , depending on air contamination level
Max room size	Up to 500m <sup>2</sup>
Neutralization chamber	Self-cleaning, long life, maintenance free for up to 9000 hours of lamp life
Display languages	English
Fan speed settings	4
Control via local LAN	Yes, dedicated website
UV lamps life status	Real Time control
Working modes	Manual/Automatic
Dust level, output air	Yes, LCD display
VOC level, output air	Yes, LCD display
Electrical safety	CE, EMC certification