EVERY BREATH WE TAKE

Clean Air Solutions for your Facility

WE'VE TAKEN OUR AIR FOR GRANTED, UNTIL TODAY.

Improving indoor air quality (IAQ) is one of the most effective ways to address airborne health risks in your building, including Covid 19.

This pandemic has shed light on what it truly takes to improve the IAQ in the buildings we work, educate and live in. The quality of indoor air we breathe impacts our well-being. Indoor pollutants can be invisible to our senses, yet harmful to our health and productivity. In your lifetime you breathe over 250 million litres of air, 4x more than food and liquid combined. Airborne health risks have risen to the top of health concerns, We must start taking IAQ seriously for the safety of the people in our spaces and improve the air we breathe indoors.

These products were born of out necessity. innovation helped our founders get back to work safely. We understand the challenges with existing systems. Our purpose is to engineer solutions that use science-based, proven applications to eliminate risks in the air we breathe.

Air Purification vs Filtration

Air filtration gets rid of the airborne particles through the use of an air filter which 'captures' them. Air purification (air cleaning) removes contaminants (viruses, bacteria, mites, bugs, spores, molds, fungai, smells, gasses etc) from the air in a room by killing them first and then capturing them—sanitizing the air and returning it back into the space. What particles get removed depends on the type of filtration and sanitization 'purification' methods that get used. Some trap, some neutralize, some kill. We capture and kill 99.99% on the first pass.

Air purification is an important part of an overall strategy to improve indoor air quality in your space and should be part of the ventilation and filtration strategy, particularly in areas where ventilation is inadequate. This includes high traffic areas where people are generating a lot of aerosols into the air from talking, sneezing, coughing, even just breathing. Retrofitting HVAC systems is extremely costly and only gives us marginal benefit because of its inability to clean the air in these high traffic zones. Increasing the level of overall filtration needs a much higher airflow for the filters to be efficient, which can upset the balance in the building needed for overall comfort.

The challenge: how to effectively clean and move high volumes of air. Our approach answers this question.

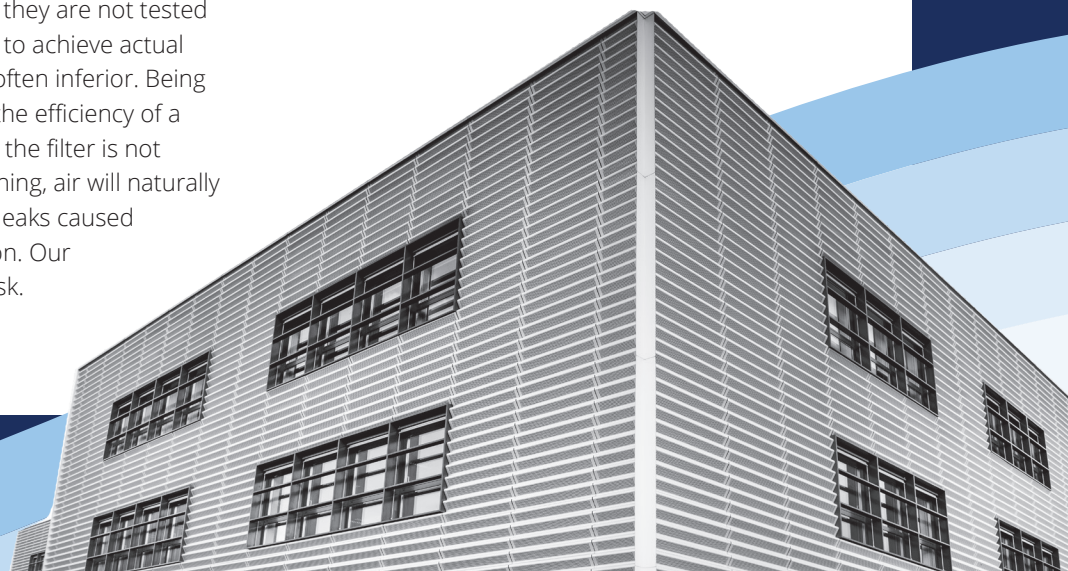
IT'S TIME TO CLEAR THE AIR

The Advantages of Our Approach

Treating air in motion is complex. Considerations include who is occupying the space, entering and leaving it, the filtration methods used and what is the recommended air volume to be turned over. Our solutions were designed by industry leaders in industrial clean air, infectious disease protocol, mechanical engineering, and global leaders in UVC germicidal light at Signify who came together to ensure that our scientific approach to filtration eradicates risk at the microscopic level, returning 99.99% safe, clean air back into the space.

Our solutions:

1. Use the design of high disinfection rates (LOG1) achieved with UVC, combined with 99.99% filtration efficiency at 0.3 microns with scan-tested HEPA allowing us to effectively reach 99.99% LOG 4 reduction on the first pass through the purification unit.
2. Contain a UVC "kill chamber" designed effectively to achieve LOG 1 reduction. Most UVGI air purifiers do not provide sufficient time and/or enough UVC dosage to be effective.
3. Only use scan-tested, true HEPA filters as the final filtration stage. There are a lot of 'HEPA-like' named filters out there but they are not tested to the standards necessary to achieve actual HEPA certification and are often inferior. Being scan-tested also improves the efficiency of a true HEPA filter. We ensure the filter is not susceptible to bypass, meaning, air will naturally go around the filter due to leaks caused by poor design or fabrication. Our approach eliminates that risk.
4. Deliver a significantly higher turnover rate of air (ACH) with higher CFM. We work with your facility experts to determine the appropriate type of system and placement to help achieve target air changes per hour and address high traffic zones.
5. To date, we are the only vendor globally that has created a completely closed loop, central air purification system, that can be (independently of the HVAC system) ducted in buildings and office spaces. Our approach allows for fast and cost effective retrofits that do not impact the building system.



HOW OUR SYSTEMS WORK

Bigger is Better

Air in motion is challenging to disinfect, mostly because of the speed at which it moves. With, at best milliseconds, neutralizing and irradiating viruses and other biological particulate (molds/spores/fungai etc) via UVC is extremely effective, however, the 'kill' chamber size needed to increase, and air speed needed to lower so we could increase UVC exposure to get a higher kill rate. It is because of this that our systems are larger in size. Successful irradiation relies on proper dosage of UVC and the appropriate time of exposure to achieve LOG 1. Infection control is also additive--layering steps improves effectiveness. It is then imperative to pair UVC with scan-tested HEPA to reach the equivalent of 99.99% reduction rate or LOG 4. Our innovation focused on achieving first-pass kill.

UVC Maximized

Care has been taken in the design of our 'kill chamber' to create the most effective environment conducive to the use of UVC germicidal light.

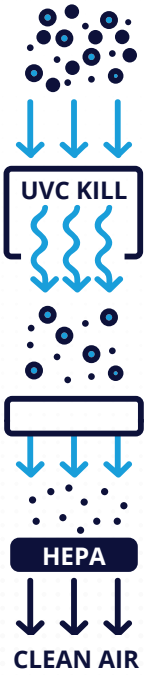
Designed with Signify, the UVC kill chamber not only has the appropriate amount of UVC lamps and wattage for proper dosage to be effective, but also uses reflective inner surfaces to destroy viruses within the chamber. Our chamber uses highly reflective material in order to achieve minimum 80% efficient surface reflectance levels. The appropriate number of UVC lamps are equally spaced in order to achieve maximum surface coverage, and a minimum of five reflective surfaces within.

Filtration At A Glance

Our units have either 3 or 4 stages of filtration, depending on size of the unit. Both designs stay true to our scientific and engineered approach to filtration.

Portables

- ✔ UVC Kill Chamber
- ✔ MERV 6 carbon impregnated pre- filter to capture larger particulate matter ahead of the HEPA filter, while also adding odor absorption through the carbon.
- ✔ Medical Grade True HEPA filter (scan tested to 99.99% efficient at 0.3 micron).



Centralized/Stand Alone

- ✔ UVC Kill Chamber
- ✔ Carbon Pre-filter
- ✔ MERV 8 filter impregnated pre-filter to capture larger particulate matter ahead of the HEPA filter, while also adding odor absorption through the carbon.
- ✔ Medical Grade True HEPA filter (scan tested to 99.99% efficient at 0.3 micron).

Our Products Put Quality Back into Air Quality

In addition to superior design, our units are built to integrate seamlessly and quietly into your space.

OUR UNITS:

- ✔ **Are powerful, yet quiet.** All our units test from 52-62 dBA, depending on speed of fan use. (60 dBA is normal conversation)
- ✔ **Fit elegantly into your space.** Designed for space consideration and functionality of users.
- ✔ **Provide significant airflo** to maximize effectiveness of the filtration system to deliver high disinfection rates without making modifications to existing HVAC systems.
- ✔ **Can add to your layered infection protocols** to reduce the risk of virus transmission, increasing the confidence in the safety of your environment for your staff and visitors.
- ✔ **Can help reduce employee sick time and improve productivity** resulting in a more healthy, safe, work environment because of overall improved indoor air quality.

PRODUCT RANGE

TC1200 - FIXED CENTRAL AIR UNIT

For multi-office applications, extended medical and dental.

Technical Specs

- ✔ 2 HP motor, 230/60/1 voltage
- ✔ 1200 cfm nominal
- ✔ Dimension: 38"w x 26 5/8"d x 58 1/16" h
- ✔ Sound insulation: 61db at 5 ft
- ✔ UVC Chamber with 8 x 55w bulbs
- ✔ MERV 8 Pre-filter and Carbon Filter
- ✔ Final filter: True HEPA, 99.99% @ 0.3 microns

Key Features

- ✔ Smart relay controller with HEPA pressure sensor alarm
- ✔ Active bulb monitoring system with timer
- ✔ Accommodates up to 5 ceiling-mounted movable aerosol fume capture arms. Can be ducted without arms for regular office applications.
- ✔ Washable aluminum mesh UVC protection screen

AV1000 STANDALONE UNIT

For large ambient air applications in gathering spaces such as lobbies, common rooms, classrooms, dining halls, etc.

Technical Specs

- ✔ 1 HP motor, 115/ 60/ 1 Voltage with plug
- ✔ 1000 cfm nominal
- ✔ Dimensions: 30 3/8" w x 15 25/32" d x 90" h
- ✔ Sound insulation 52-62 dBA depending on air speed
- ✔ UVC Chamber with 10 x 24w bulbs
- ✔ MERV 8 Pre-filter and carbon filter
- ✔ Final filter: True HEPA, 99.99% @ 0.3 microns

Key Features

- ✔ Customizable to room interior
- ✔ Easy to Use
- ✔ Four stage filtration including UVC and true HEPA
- ✔ Adds 6.6 air changes per hour to existing HVAC (for a room approximately 30x30x10)

MRP600 - MOBILE PORTABLE UNIT

For portable ambient air applications

Technical Specs

- ✔ 0.75 HP motor, 115/1/60 Voltage, w/ plug
- ✔ 600 cfm nominal
- ✔ Dimensions: 18" w x 19.5" d x 43 5/8" h (incl. top discharge hood)
- ✔ Sound insulation: 54db at 5 ft
- ✔ UVC Chamber with 2 x 60w bulbs
- ✔ MERV 6 carbon impregnated pre-filter
- ✔ Final filter: True HEPA, 99.99% @ 0.3 microns

Key Features

- ✔ Variable airflow speed dial

P300 PORTABLE UNIT W/EXTRACTION ARM

For all small office applications for dental, extended medical

Technical Specs

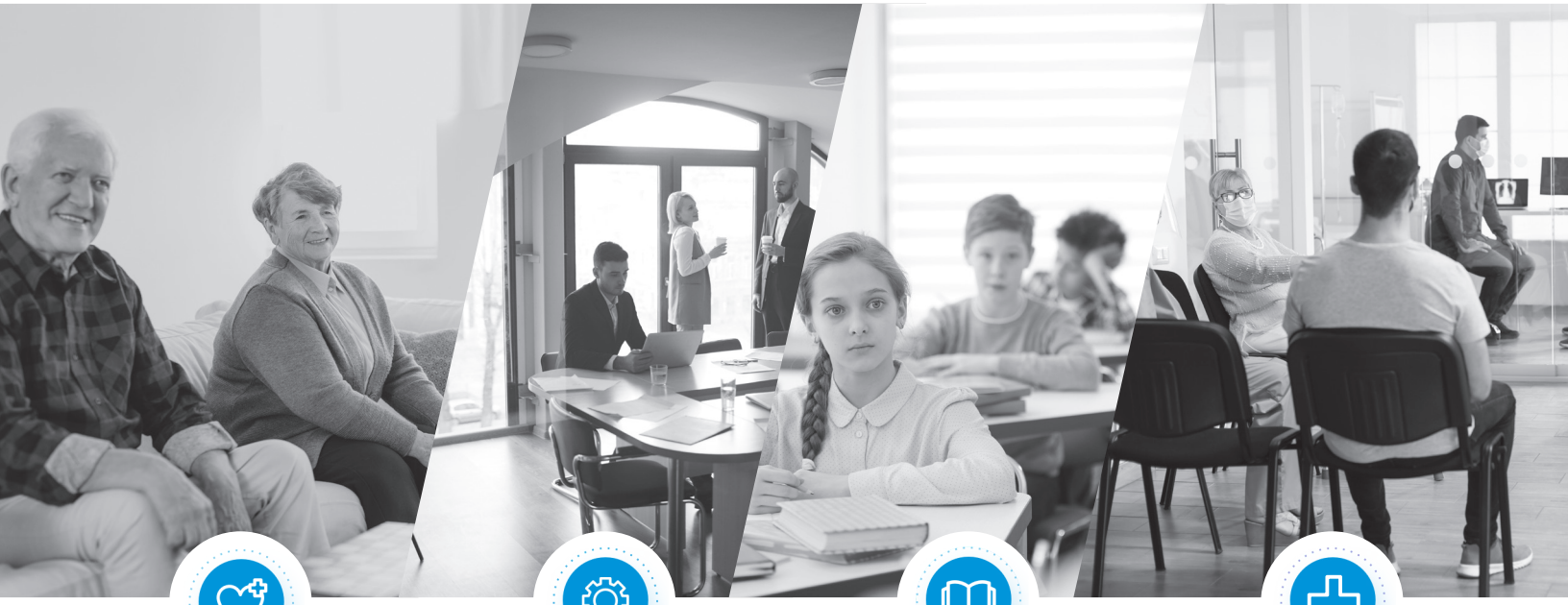
- ✔ 0.75 HP motor, 115/1/60 Voltage, 300 cfm nominal
- ✔ Aerosol fume capture arm
- ✔ Dimensions: 18" w x 19.5" d x 40"h (before arm)
- ✔ Sound insulation: 54db at 5 ft
- ✔ UVC Chamber with 2 x 60w bulbs
- ✔ MERV 6 carbon impregnated pre-filter
- ✔ Final filter: True HEPA, 99.99% @ 0.3 microns

Key Features

- ✔ Variable airflow speed dial
- ✔ Extraction arm: Movex 3" bench mount style,two styles of hoods to choose from

WHERE WE GATHER

Our Systems work anywhere we gather.



Senior Living

Help keep our most vulnerable people protected, even during flu season.

Commercial Settings

Solutions for office gathering spaces, shop floors, food service, events and hospitality, specialty vehicles, remote offices and other industrial applications.

Schools

Help our professors, teachers and students feel safe attending classes, labs and study sessions.

Medical, Paramedical, Dental & Health Services

Reduce the risk of aerosols and viruses during your health care visits.