

aidisys

Air Disinfection System

Do not need air ducts
Do not contain mercury
UV radiation without any risk
Patented
Upgradable and repairable



The system that cleans, purifies and disinfects the air we breathe, eliminating or inactivating up to 99.97% of pollutants and pathogens (viruses, bacteria, etc.)

The best solution for offices, commercial establishments, medical centers, classrooms, gyms, residences and, in general, for **any closed area in which you want to preserve your health.**



Particulate air pollution is the greatest threat to human health globally.

We need to breathe to stay alive. But when we breathe we inhale the oxygen we need and, currently, also countless pollution.



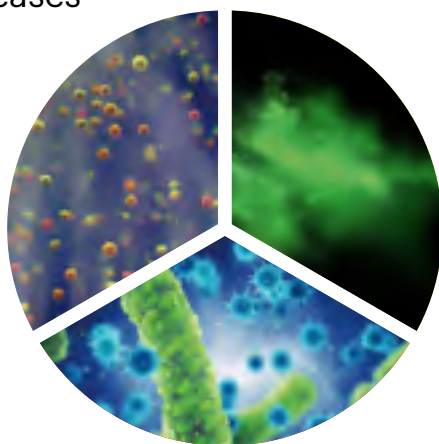
There are 3 types of air pollutants responsible for causing or aggravating allergies, asthma, infections, and other diseases in humans.

1. Particles and allergens

Dust - Skin Flakes
Dust Mite Feces - Pet Dander
Smoke - Hair

Health Effects:

Runny nose, cough, sneezing, congestion, sore throat, asthma, wheezing...



2. Chemical gases and odors

Chemicals - Pesticides - Cleaning Solvents
Building Materials - Formaldehyde - Benzene
VOCs (Volatile Organic Compounds)

Health Effects:

Headache, nausea, dizziness, blurred vision, lethargy, memory lapse, lung problems...

3. Germs and infectious agents

Viruses - Bacteria - Mildew
Flu virus - Pollen Growth

Health Effects:

Respiratory infection, throat and ear infection, bronchitis, pneumonia, sinusitis...

Michael Greenstone, Chicago's University professor and main promoter of AQLI.com (Air Quality Life Index, one of the main indexes for measuring air's quality), says that, "though the threat of coronavirus is grave and deserves every bit of the attention it is receiving—perhaps more in some places—embracing the seriousness of air pollution with a similar vigor would allow billions of people around the world to lead longer and healthier lives,"¹.

AQLI explains that particulate air pollution shortens the life of the average person by almost 2 years (10 years in some countries), more than devastating communicable diseases like tuberculosis and HIV/AIDS, behaviors as harmful as cigarette smoking and even war. Both climate change and increasing pollution will only make this picture worse.

1 <https://aqli.epic.uchicago.edu/pollution-facts/>



“Nowadays airborne-mediated microbial diseases represent one of the major challenges to worldwide public health. Common examples are influenza, appearing in seasonal and pandemic forms, and bacterially-based airborne-mediated diseases such as tuberculosis, increasingly emerging in multi-drug resistant form.”² And at this point we cannot forget the latest pandemic caused by COVID-19.

Furthermore, studies carried out in different countries indicate that, in urban areas, most people spend between 85% and 90% of the time inside buildings where pollution has been found to be even much higher than outdoors.

“However, the levels of indoor air pollutants are often 2 to 5 times higher than outdoor levels, and in some cases these levels can exceed 100 times that of outdoor levels of the same pollutants.”

United States Environmental Protection Agency

If polluted air kills, pollution (including viruses) has a tendency to increase and pollution inside buildings (where we spend most of our time) is even higher than what we face outdoors, **how can we to protect?**

AIDISYS is the system that takes care that we breathe in a healthy way in closed spaces because it cleans, purifies and disinfects indoor’s air, inactivating viruses and germs and eliminating gases, particles and odours.

We improve the results of cleaning and air’s disinfection by combining, through chaining of processes, 3 different and complementary technologies that have been scientifically proven to be successful: **photocatalysis, UV-C and activated carbon filtration.**



Using **extractors**, the air in the room is introduced into the AIRISYS disinfection and purification system. A pre-filter retains larger elements such as hair, insects, etc.

Latest generation high power **UV-A LEDs** activate a titanium dioxide filter that, together with oxygen and water in the environment, produce radicals that neutralize organic and inorganic compounds, turning them into oxidized compounds.

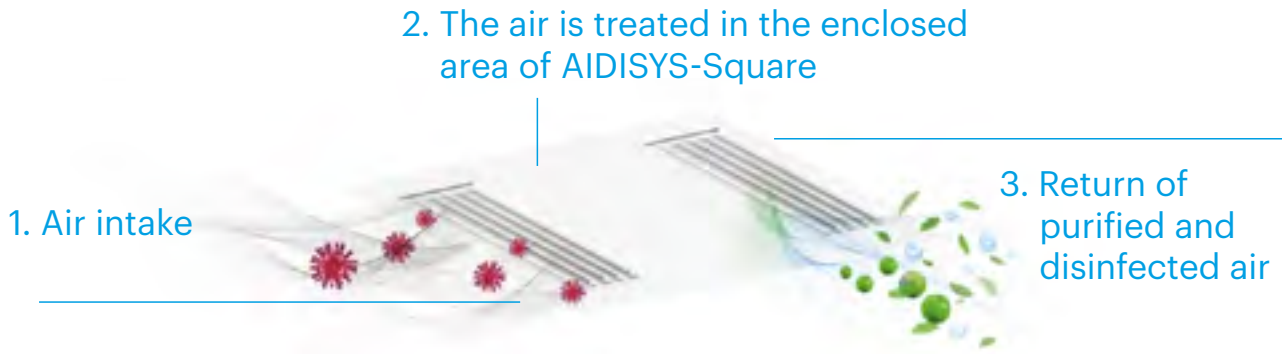
The latest generation high power **UV-C LEDs** also inactivate specific organic and inorganic compounds in the atmosphere and residualize ozone and other gases generated in photocatalysis.

High porosity activated **carbon filter** that traps compounds, mainly organic, that are in the atmosphere and allows to retain particles and odors.

Once pollution has been eliminated, the **clean air** is reverted to the environment and can be breathe by the beings in the room without harmful particles and organisms be entering their body.

2 David Welch et al. <https://www.nature.com/articles/s41598-018-21058-w#ref-CR1>

aidisys SQUARE model



Why is it important to have an air purification system independent of air conditioning equipment?

We don't always need air conditioning, but we always need clean air. In addition, the air conditioning has different powers that translate into different speeds of air circulation inside it, which causes a shorter exposure time of the elements to be treated within the cleaning and disinfection system.

How does AIDISYS avoid the risk of UV radiation damage?

In AIDISYS the emission of UVA or UVC radiation is only carried out inside the treatment unit. If the AIDISYS cover is opened, the power supply to the LEDs is automatically disconnected, thereby interrupting the generation of UV radiation and protecting people who, voluntarily or accidentally, proceeded to open it.

What fastening systems does the SQUARE model offer?

This AIDISYS model **can be supported by a 60x60 plate structure** (replacing a plate) or suspended directly from the ceiling using a **cable system**.

We can also provide:

- **Frames for plaster or wood ceilings** that allow the SQUARE to be supported as if it were a plate structure (to be flush with the ceiling).
- **Frames for surface mounting.**

[Watch the explanatory video](#) of the different fastening systems available.

What finishing options are offered?

Standard matt white finish. Other colours may be available upon request.

Have you to provide system's maintenance?

It is advisable to clean or replace the carbon filter every 3 or 4 months of operation and an annual check to verify that the radiation emitted by the LEDs is still optimal.

What is the consumption of the fully operational equipment?

The consumption of a SQUARE unit is 75Wh.

Distributed by:

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