THE MOST IMPORTANT SENSORS OF INDOOR AIR QUALITY ARE PEOPLE.

WE ENSURE THEY ARE FREE OF SYMPTOMS.

genano

Inspired by Nordic nature

Our mission is to produce ultra pure air. for better health, life, environment and energy efficiency.

Finnish technology since

1960

Company founded in

1999

Operations in

30+
countries

>50
distributors worldwide

OWN
patented technology

DESIGN FROM FINLAND®

Genano Clean Air as a Service™

INITIAL ASSESSMENT
Assessment visit
Site-specific protection plans
Symptom survey

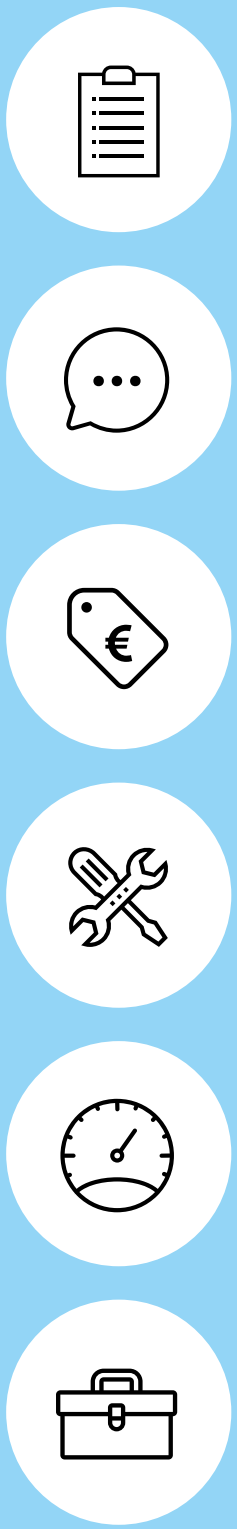
RECOMMENDED ACTIONS
Reporting
Proposals for adjustments/actions

OFFER AND ACCEPTANCE
Dimensioning and capacity calculation
Set of equipment based on the assessment

DELIVERY AND COMMISSIONING
Positioning, installation
User training

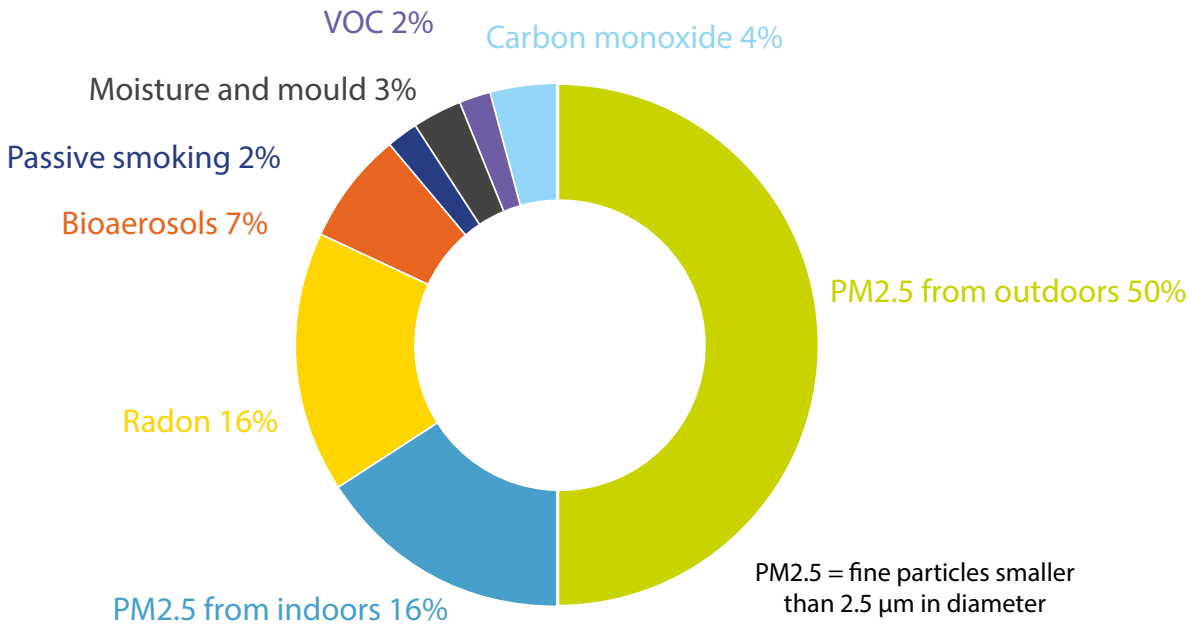
RESULT CHECKING
Monitoring visits
Symptom survey
Feedback discussion

MAINTENANCE AND SERVICING
Maintenance
Genano experts' support in all issues
related to indoor air quality



Air is fuel for people – why can it make you ill?

Ultrafine particles endanger your health



Indoor air problems have various causes - not always mould

We breathe 15,000 to 40,000 litres of air per day This is why good indoor air quality is essential for our health. We do not drink contaminated water either, so why accept contaminated air?

Impurities in indoor air cause symptoms such as colds, coughs, fatigue, eye irritation, blocked sinuses, headaches, allergies, asthma and skin symptoms, as well as respiratory infections and sinusitis. All factors in buildings that increase the risk of allergic symptoms can be alleviated by good real estate management.

Ultrafine particles that are smaller than 0.1 micrometres can enter the blood stream through the lungs and end up in organs.*

Indoor air problems incur considerable costs through, for example, a lowered ability to work, sick leaves and even disability.

**Hänninen O. & Asikainen A. THL Report, 2013*

Genano air purifiers are also good for purifying indoor air of odours, viruses, bacteria, gaseous compounds released by building materials, fibres and pollutants coming from the outside.

NEW BUILDINGS

Chemicals are often used in new buildings to provide technical qualities for the materials. These include fire retardants used in textiles. Many materials used indoors, such as sound insulation boards, release fibrous particles that can cause various symptoms.

Buildings, furniture and fittings can also contain glues, chipboard, fillers, paints, laminates, varnish and sealants with a range of chemical compounds. These materials release VOC's; gaseous compounds known as aldehydes, which can cause symptoms and even health problems. In terms of indoor air quality, the smell of a new building does not always clean.

RENOVATION SITES

Poor indoor air quality in old buildings often manifests itself as a stuffy smell caused by microbes growing on structures affected by excess moisture. Mould spores are airborne and can enter the body through breathing and cause respiratory diseases. Air humidifiers and coolers can provide a breeding ground for hazardous bacteria if the water in them is not recycled and boiled.

Impurities in outdoor air, such as pollen, are brought inside by ventilation systems or through leaking windows. Traffic pollutants, including carbon monoxide, hydrocarbons, soot and nitrogen oxides, are a problem in city centres. Design flaws in buildings, such as a waste air outlet from a garage located too close to a supply air vent, can result in hazardous compounds entering the building.

In old buildings, problems can also be caused by dust collecting in ventilation pipes and structures.

WORKPLACES, GYMS

Gaseous, particle-like impurities are also produced by processes such as photocopying and cleaning.

People also pollute indoor air themselves by producing many ill-smelling secretory products that are released into air through breathing or sweating, and by spreading bacteria and viruses via direct or indirect contact. For example, at gyms human-originated viruses and bacteria spread via air and touch, causing health hazards. This is, for example, how influenza epidemics spread.

It is very important to remove even the smallest impurities from indoor air. The most commonly used air purifiers are equipped with a HEPA filter and can remove particles of 300 nanometres and larger. HEPA filters cannot remove ultrafine particles from the air. Up to 66% of impurities in indoor air are smaller than 100 nanometers. HEPA filters cannot remove hazardous gaseous compounds either.

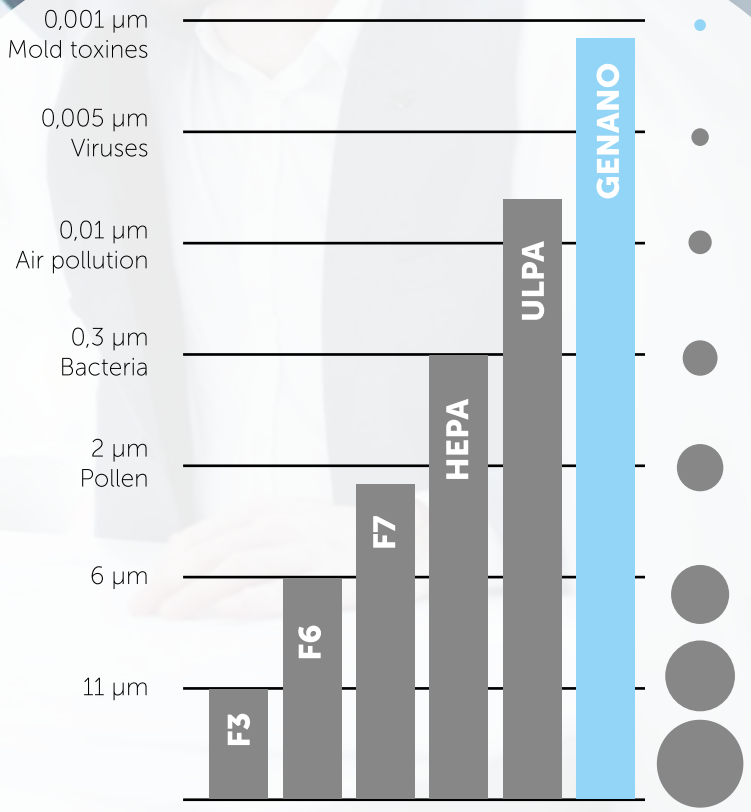
Genano technology also captures ultrafine particles from indoor air. It also kills microbes, such as viruses, bacteria and mould spores. Impurities attach to a collecting surface inside the device. Finally air is directed to an active carbon collector that removes hazardous gaseous compounds and unpleasant odours from the air.

The electric Genano air purification method exploits the combined effect of electrical charges and powerful ionic sprays. The technology was originally developed for air purification in cleanrooms.

Many Genano devices are equipped with a unique cleaning system that automatically cleans the collecting surfaces weekly.

Our air purifiers do not contain any easily clogged, regularly replaceable filters, so their performance remains constantly high and they are easy to use – and no replaceable parts means low running costs.

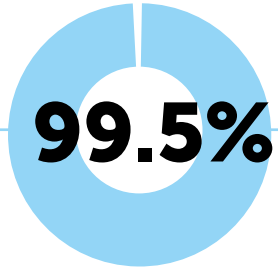
Genano
is the only
solution that
removes ultrafine
particles,
down to 0,003 µm.
HEPA fails at this.



Why Genano?

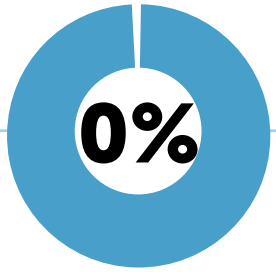
1. **Contaminated air is led inside the unit.**
2. **Particles are ionized. The negatively charged particles attached to the positive collection surface and microbes are destroyed in a high voltage process.**
3. **3-layer active carbon collector effectively removes VOC gases and odours.**
4. **Some mobile Genano units have an automatic washing function which reduces the need for maintenance and keeps the purification efficiency high at all times.**

Outcoming ultrapure air is completely free from particles of all sizes, microbes, and harmful gases and chemicals.



Finnish Institute of Occupational Health, Finland: PURIFYING PERFORMANCE for particle size 0.003 – 10 µm

Laboratoire National d'Essai, France: 100% OF MICROBES DESTROYED after the device was turned on



MetropoliLab, Finland: NUMBER OF LIVING MICROBES in output air or cleaning tank


Easy to take into use
Saves time and money
Removes mould toxins, bacteria and viruses
Immediate effect and rapid commissioning
Easy solution for indoor air problems
Buys more planning time for repairs
Reduces sick leaves
No need for temporary relocation

Case:Seppo School, Espoo

The staff and pupils of Seppo School, located in Northern-Tapiola Finland, had been showing symptoms of poor indoor air quality for years. The school had undergone major renovations and cleaning operations, but these were unable to fully clear the symptoms.

Jaana Koskinen, a teacher at the school, states that her asthmatic symptoms and coughing started already in the early 90s and that these symptoms have become worse over the years. Almost all the other elementary schools in the area have had to move into temporary school premises and that, of course, is not an ideal situation for anyone." she adds.

Genano nanoscale air purifiers have been used at other locations by the city of Espoo in the past with good results and some of these had also been placed at the Seppo school some years ago. Genano air purifiers were first put in classrooms where teachers showed the worst symptoms. The vice principle, Jouni-Jukka Annala's classroom was one of the first ones. "My first symptoms were itchy eyes and sneezing," says Annala.

When the health problems among teachers and students continued, it was understood that it was not enough to only clean the air in individual rooms.

During the spring of 2017 all rooms in the Seppo school received an air purifier, based on Genano's recommendations The full range of Genano products was utilised in classrooms of different sizes to ensure clean indoor air in the entire building.

The improved air quality produced by the nanoscale air purifiers was quickly noticed around the school. "We've all experienced a reduction in sick leaves after the air purifiers arrived", says school secretary Pirjo Myllys. She thinks that the most important change has been the students' improved ability to concentrate on work since the indoor air has been cleaner.

"At the moment the indoor air quality is good. We are still worried that the situation might change if the air purifiers are taken out of the school, says Saija Holopainen, the principle of Seppo school.

The difference has also been noticed by Vice Principle Annala, who considers it extremely important from the recruitment point of view. "Potential recruits often ask about our indoor air quality, and now we can tell them that we have these purifiers producing clean air, and the situation is good."

"Air purifiers have enabled good working conditions on the school premises."
– TEACHER, SEPPO SCHOOL

"All symptoms simply disappeared. Potential recruits often ask about our indoor air quality, and now we can tell them that we have these purifiers producing clean air, and the situation is good."
– VICE PRINCIPAL JOUNI-JUKKA ANNALA

"I've never come across air purifiers as effective as this one. The other ones seemed to have more of a cosmetic effect on the situation. This, on the other hand, is a game changer!"
– TEACHER, SEPPO SCHOOL

"There has been a reduction in sick leaves."
– SCHOOL SECRETARY PIRJO MYLLYS

Developed for hospital cleanrooms

The patented Finnish Genano technology was originally developed for medical isolation rooms and cleanrooms at hospitals, as well as for laboratories.

Genano technology is used for, for example, isolating patients at hospitals, preventing infectious diseases in critical facilities, such as operating theatres and intensive care units, as well as for protecting patients with compromised immunity.

Genano technology is also used for the prevention of airborne contamination in laboratories and other cleanrooms, such as the production facilities for processed food, medicines and petrochemical products, and for the protection of personnel from nanoparticles, gaseous air impurities and microbes created in connection with various processes.

Our promise to you, our customer:

Trust

built through our understanding of your activities.

Expertise

equals knowledge of air impurities and of ways to remove them.

Ease

offered to our customers by our comprehensive service concept.

genano

www.genano.com

Further information about the Genano Clean Air as a Service is available at genano.com,
or you can contact us for more information at info@genano.fi

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