

Genano

Pure Air. Nothing Else.

ONE STOP SHOP
FOR SAFE AIR



Genano



Genano
— group —

Company established

1999

Operates in

30+

countries

>50

distributors
worldwide

Own

PATENTED

technology

Inspired by Nordic Purity

Our mission is to protect people,
production processes and the
environment by producing
ultra clean air.

Our service based concepts for clean air cover the following areas



Why clean air matters for us?

We all inhale ~10 000 liters of air every day

- An average water intake is around 3 liters
- Clean water is regulated, but only a few of us can choose what kind of air to breathe!

The world is more polluted than ever

- Emission control
- CO₂ pattern & energy consumption

We spend more than 90% of our time inside

- Exposure to airborne virus infections
- Sick buildings with mold toxins, VOC's cause symptoms
- Air pollutions from outside enter the buildings through ventilation, windows and doors

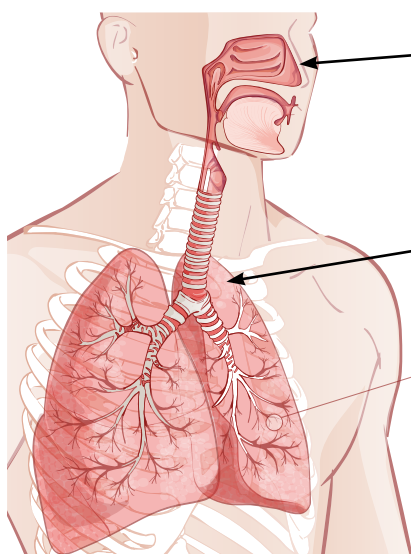
Healthcare Associated Infections are a global problem

- Cost is billions of \$ annually for the communities
- Increased usage of asthma medication

New technologies in manufacturing industries require cleaner environments

- Nanotechnology
- DNA, Biotech & pharma
- Electronics, MEMS, optics

WHY ULTRA-FINE PARTICLES ARE DANGEROUS FOR US?



Large particles are mostly captured by mucous membranes of nose and throat.

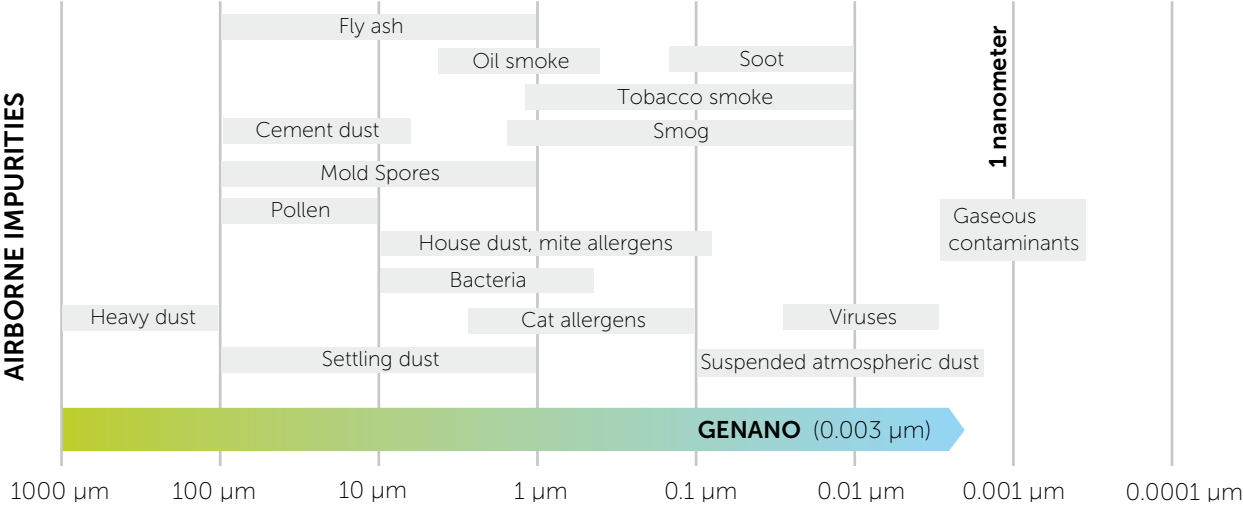
Inhalable particles < 10 µm (called PM₁₀) can enter the lungs.

Fine particles < 2,5 µm (called PM_{2,5}) can penetrate into alveoles.

Ultrafine particles < 0,1 µm (100 nm) can be absorbed directly into bloodstream and are the most dangerous ones, according to WHO.

Patented Genano Technology®

Air purification down to
nanosize particles





CLEAN INDOOR AIR AS A SERVICE

Solutions for

- Workplace safety – elimination of airborne viruses and bacteria
- Sick building syndroma cases: schools, offices, daycare
- Preventive care against gaseous compounds
- Renovation sites
- Workplaces & Gyms etc.

Full scale Service Concept for comprehensive solution
– from initial assessment to symptom survey service, continuous monitoring & service.



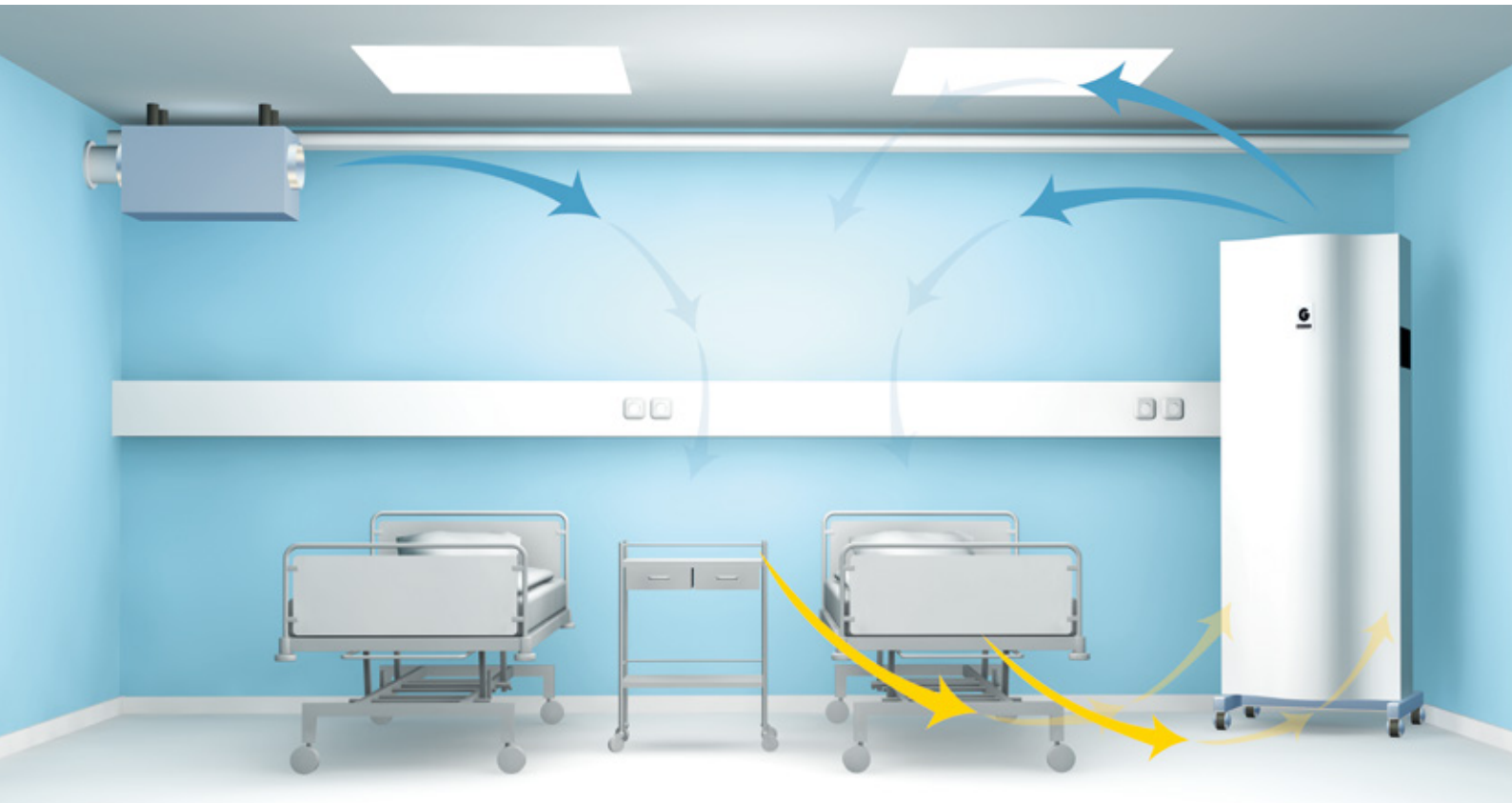
GENANOMETER – CONTINUOUS AIR QUALITY MONITORING SERVICE

Remote condition monitoring is done today with sensors using global Sigfox network

- Genanometer and connected sensors monitor temperature, CO_2 , humidity, pressure, $\text{PM}_{2.5}$ and PM_{10}

FoxerIoT platform for easy management – mobile application available

- One multi-tenant service for full end-to-end IoT solution
- Provisioning, device management, data perishing and dashboard in same easy service.
- Making air quality visible for property managers and users



NANOSCALE AIR DECONTAMINATION SOLUTIONS FOR FACILITIES, WHERE HEPA IS NOT ENOUGH

Solutions against the spread of airborne impurities in critical areas, and in cleanrooms

- Fighting against impurities in i.e. DNA, Biotech or Pharma laboratories
- Fighting against Particulate matter in production facilities i.e. coating, electronics, optics or Nanotech
- Solutions for flexible, plug & play isolation rooms in hospitals, with negative or positive pressure kits
- Solutions for ensuring hygiene in patient rooms, operating theatres and ICU.



**No
disposable
filters**

**Does not
emit
ozone**

**Complements
existing
ventilation**

**No substrate
for microbes
to grow**

**Removes
particles down
to nanosize**

**Eliminates
microbes**

**Removes
gases and
odours**

**Low
life-time
running
costs**

**Easy
maintenance;
automatic
washing**

**Easy
Plug & Play
installation**

**Negative/
Positive
Pressure
Installation Kits
available**

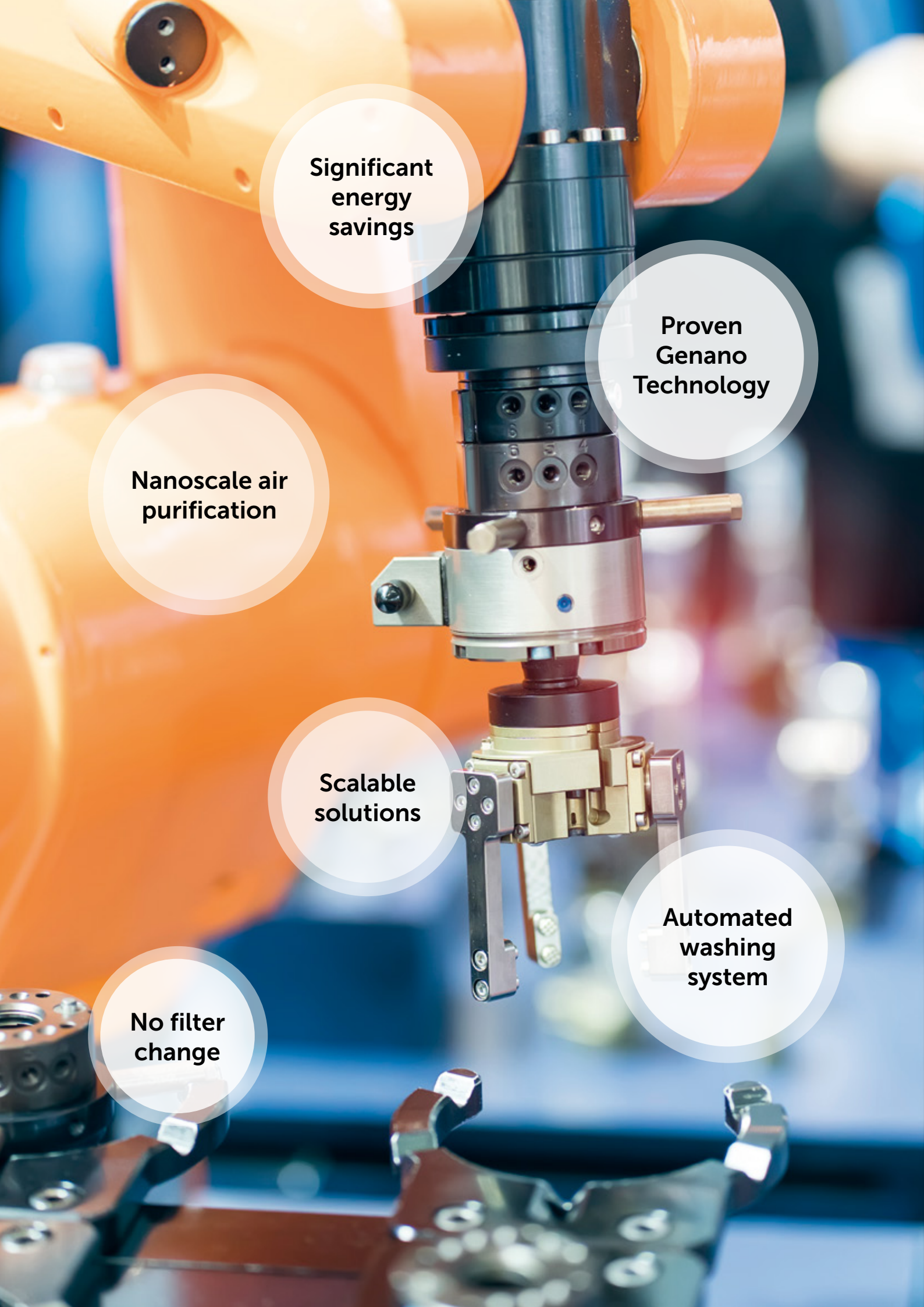
Creating healthier homes





AN INTEGRATED PART OF FUTURE BUILDING TO ENSURE HEALTHIER HOMES

- Built in filter free air purification for housing / office buildings to ensure clean and fresh indoor air
- Prevent from indoor air quality problems and sick building syndrome
- Prevent outdoor pollution from entering living spaces
- Energy saving & increased standard of living
- Increased property value

A close-up photograph of an orange industrial robotic arm. The arm is positioned vertically, showing its joints and mechanical components. The background is a blurred factory floor with blue and white lights. Six white circular callout bubbles with black text are overlaid on the image, highlighting key features of the technology.

**Significant
energy
savings**

**Proven
Genano
Technology**

**Nanoscale air
purification**

**Scalable
solutions**

**Automated
washing
system**

**No filter
change**

INNOVATIVE SOLUTIONS FOR INDOOR AIR PURIFICATION IN PRODUCTION, LOGISTIC AND PARKING HALLS

Scalable solutions for halls, where manufacturing processes generate impurities that compromise workers health; such as welding fumes or oil mist.

Nanoscale air purification to protect stored goods, sensitive robotics and production processes that require high indoor purity level.

Proven Genano Technology enables low operation cost and long life-time.

Significant energy savings with circulated air flow solution.

Automated washing system for reduced maintenance need.

No need for filter change – continuously high particle filtration efficiency lowers the cost of changeable parts.

Retrofit solution for existing premises.

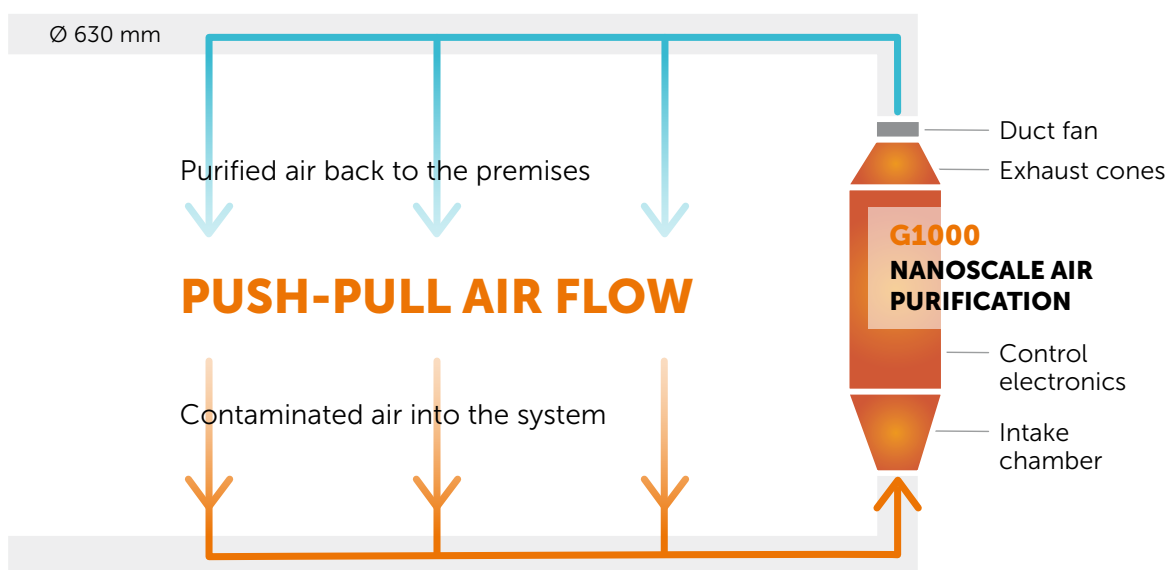


Illustration shows how the air can be circulated within the premises.



SMART AND EFFICIENT VOC ABATEMENT WITH CATALYTIC OXIDATION

Compact, state-of-the-art catalytic VOC and odor abatement system with high purification efficiency

- VOC emissions are significant greenhouse gases, and therefore regulated by national and European directives
- Regenerative catalytic oxidizer is an energy efficient control of VOC waste gases
- The operation temperature is up to 500°C lower than in thermal oxidation!
- Due to low operating temperature, the system does not produce harmful by-products such as carbon monoxide (CO) and nitrogen oxides (NO_x)
- Developed in research collaboration with Oulu University and VTT Technical Research Centre of Finland



Genano[®] technologies

Electric filtration – stand alone purifiers

- Internationally patented until 2038
- Eliminates 99,999% of indoor microbes
- Removes ultra fine particles down to 3 nm

ESP Lamell technology – duct filters & small applications

- Widely known concept also by a few others
- Filtration rate >95% down to 300 nm particle size

Combined NTP+ESP – purification solutions, G1000

- Industrial & centralized Real estate solutions
- Filtration rate >85% down to 20nm particle size

RCO technology – VOC installations

- Regenerative Catalytic Oxidizer for industrial VOC
- For concentrations 0,3–3 g/Nm³


GENANO[®] TECHNOLOGY IS TESTED BY VARIOUS INDEPENDENT RESEARCH INSTITUTES

Research Studies include among other, factors like

- Particle matter
- Elimination of microbes
- Gas absorption







Our Passion for Clean Air

Our teams are driven by enthusiasm & creativity, inspired by Genano's open innovation culture that drives us to design unique solutions for clean air. We are on the way of evolution from products to scalable concepts.

Our vision of clean air is inspired by the Nordic Purity – therefore our mission is to protect people, processes and the environment by producing clean air.

Genano worldwide

Finnish corporation with Finnish ownership

- Part of Rentto Group
- HQ in Espoo Finland
- Genano Solutions Ltd & Elixair Ltd fully owned subsidiaries

Own subsidiaries & organization in US, Canada, Sweden, Denmark, Benelux, Germany, Italy, UK, Taiwan and China.

- Around 50 experts in indoor and outdoor air impurities
- Distributors in over 30 countries
- Genano products footprint in over 50 countries

GENANO HEADQUARTERS IS LOCATED IN ESPOO, FINLAND

Our modern Technology Center is located Hyvinkää Finland, offering laboratory environment for

- Environmental tests, particulate tests, sound lab, gaseous compounds, air flow & electronics measurements etc.
- Training center
- Service & Logistics

Our promise to you, our customer:

Trust

built through our understanding of your activities.

Expertise

based on knowledge of air impurities and effective ways to remove them.

Ease

achieved with our comprehensive service concept.



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