

RUPES®

NIVEUS

Professional air purifier

Always breathe pure air



INNOVATION
TECHNOLOGY
DESIGN

NIVEUS

Professional air purifier

Always breathe pure air

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**Air pollution
PM2.5 and PM10**

Allergens

**Viruses
and bacteria**

Pollution and air quality

Every day, a person breathes in 12,000 - 15,000 liters of air. Over 90% of the world's population breathes polluted air that exceeds WHO limits (15 µg/m³ PM 2.5).

The main pollutant micro particles present in the air we breathe are:

- **Atmospheric pollution**
- **Allergens**
- **Viruses and Bacteria**
- **Odors and Fumes**
- **Volatile Organic Compounds - VOCs**

Air pollution - PM2.5 and PM10

Atmospheric pollution alters the air we breathe with physical, chemical, and biological substances. It affects human health, especially the respiratory and cardiovascular systems.

Indoor and urban pollution, caused by various sources such as industry and transportation, is among the worst global toxic problems. Every year, it causes approximately 7 million deaths and enormous economic losses, estimated at €50 trillion. In 2000, the WHO declared the fundamental right to clean air and established the safety limit at 15 µg/m³ of PM2.5, often exceeded in 90% of countries.

Allergens

Airborne allergens are substances that can cause allergic reactions. They are often small solid or liquid particles that can be inhaled or touched. They come from various sources such as pollen, dust, mold, animal dander, insects, and atmospheric pollutants.

Their sizes vary and influence their ability to penetrate the respiratory tract, with smaller ones being able to cause more severe problems like asthma. Allergies affect up to 20% of the world's population, about 1.3 billion people, predominantly in industrialized countries.



**Odours
and fumes**

**Volatile Organic Compounds
(VOCs)**

Viruses and Bacteria

Many diseases are transmitted through the air, such as the SARS-CoV-2 virus, influenza, mumps, rubella, meningitis, and serious bacterial infections like pertussis, pharyngitis, and pneumonia. Approximately 10-15% of the world's population gets sick with influenza each year, with millions of severe cases and hundreds of thousands of deaths. The NIVEUS purifier has been tested and has demonstrated over 99.9% effectiveness against bacteria and viruses, including SARS-CoV-2.

Odors and Smoke

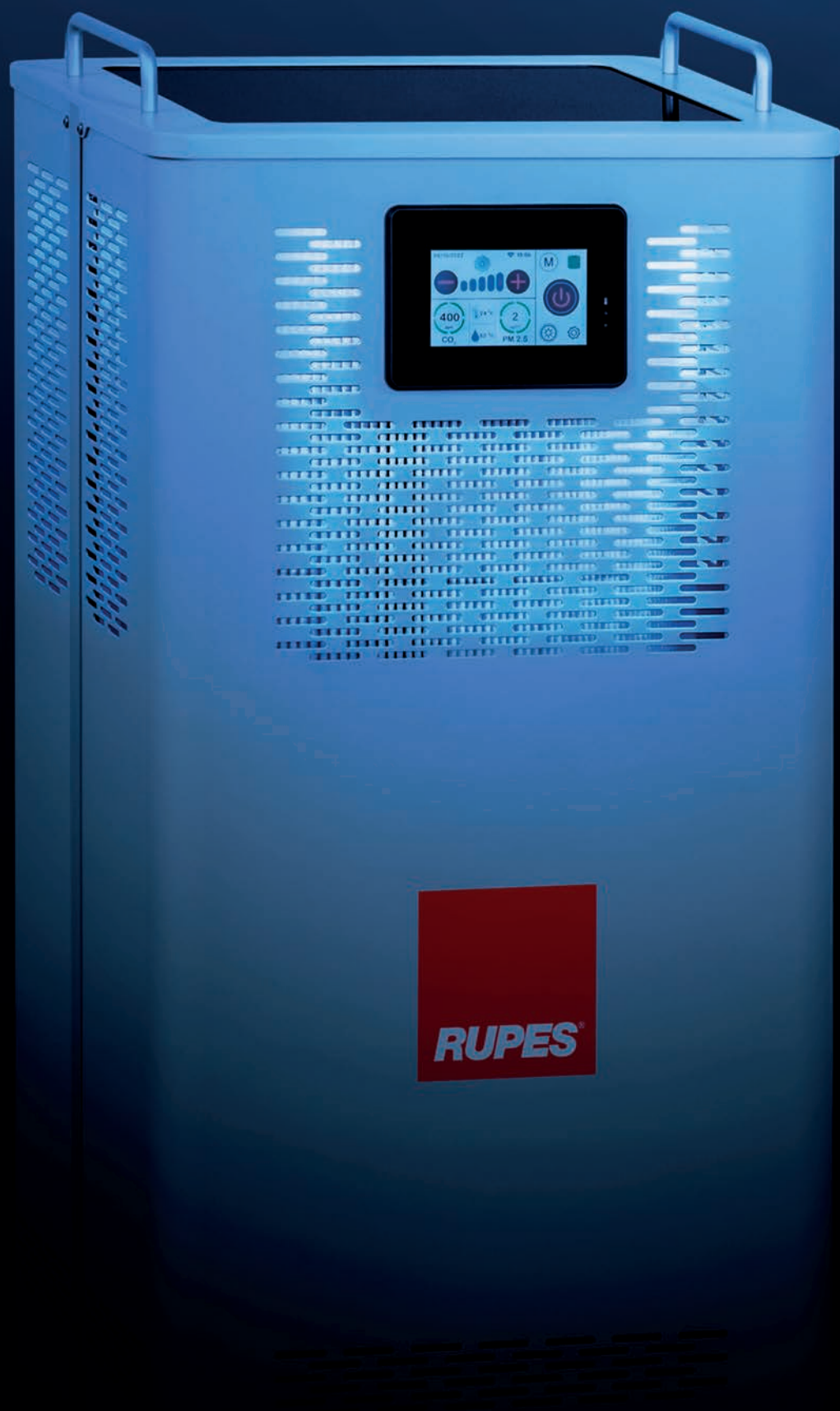
Bad odors, smog, and smoke contribute to worsening the quality of the air we breathe and can be generated by various factors such as landfills, sewers, fires, tobacco, industrial emissions, transportation, and agriculture. The NIVEUS range, in addition to the primary ULPA filter, is equipped with Secondary Activated Carbon Filters (from 1 to 5 square meters) to more rapidly reduce bad odors and smoke.

Volatile Organic Compounds (VOCs)

Volatile Organic Compounds (VOCs) are a class of chemical compounds containing carbon and hydrogen atoms with low boiling points, meaning they easily evaporate at room temperature. VOCs are generated from numerous sources, including: Human activities: VOCs are emitted from personal care products, paints, cleaning products, household items, and perfumes.

Industrial activities: Many industrial activities emit VOCs, including chemical production, power generation, and petroleum refineries.

Natural activities: VOCs are also produced by natural processes such as organic material decomposition, emissions from plants, and emissions from animals. Some examples of VOCs include benzene, methane, formaldehyde, toluene, and chloromethane. Many of these compounds are toxic to human health and the environment, so it is important to limit their emission and contact.



NIVEUS - Always breathe pure air

Air purification

Purifying the air means cleansing it from the micro polluting particles present in the air: Fine Powders (PM2.5), Allergens, Viruses, Bacteria, Smokes, Odours, Volatile Organic Compounds (VOCs).

Air quality can be measured through specific instruments and sensors and a professional purifier, located in an indoor room, must be able to give concrete and measurable results of the improvement of air quality and to cleanse the entire spectrum of micro polluting particles present in the room.

With regard to air purification, worldwide, the most effective and recognised technology ever (American, European and Australian regulations) is the "Mechanical Filtration" technology, i.e. the harmful micro particles present in the air are captured by filters consisting of multi-layer filter fabrics whose levels of efficiency and filtration quality are regulated by the international classification of high efficiency HEPA (Hi Efficiency Particulate Air) filters.

The undoubted advantage of mechanical filtration technology, compared to other technologies, is that they are able to purify the air from the whole spectrum of harmful micro particles (PM, Bacteria, Viruses, Allergens, VOCs, Fumes, Odours), capturing them and filtering them, in order to purify the air from all types of polluting particles.

Instead the other technologies (Ions, UVC, Ozone) do not purify the air because they do not act by removing particles and organisms, but are limited to altering and modifying their composition and state, without guaranteeing complete cleansing and removal from the air of fine powders, allergens, fumes, odours and VOCs.

Another important advantage of mechanical filtration purifiers is that they do not release any chemical agents that are harmful to humans (e.g. ozone/UVC), and can therefore be used constantly in the presence of people.

Furthermore, mechanical filtration purification gives concrete and measurable results (with professional tools) of improving of the air quality of an indoor environment.



Product range

NIVEUS professional purifier

NV and NVi models

- Professional air purifiers from 300 to 1200 m³/h
- For environments from 10 sq.m. up to unlimited sq.m.
- Plug and play installation
- LED lighting design
- Swivel wheels for easy positioning in the various rooms
- Extremely quiet
- Very low power consumption (88/160 Watt max.)
- Digital motor (40,000 working hours/10 years of use)

INDUSTRY 4.0

Smart technology Gamma 4.0 - Air quality control and monitoring

Air quality control and monitoring

- Smart 4.3-inch display, with professional CO2 and PM 2.5 sensors
- Wi-Fi connection for remote data control
- Constant remote control and monitoring of air quality values
- Data history
- Performance tuning for optimised purification

NIVEUS PROFESSIONAL PURIFIER

NV e NVi Models



NIVEUS NV50 - Air purifiers standard

The perfect solution for excellent air purification

TECHNICAL DATA

Mains voltage [V]	220-240
Network Frequency [Hz]	50/60
Rated power [W]	88
Maximum room area [m ²]	90
Maximum air flow rate [m ³ /h]	300
Primary filter filtering surface [m ²]	4
Degree of filtration of primary filter material *	ULPA U15
Activated carbon filter filtering surface [m ²]	4
Sound pressure level [dB(A)]	Min.19 - Max 45
Dimensions [L x W x H] - [cm]	31 x 31 x 69
Weight [kg]	22

*Filtration degree of filtering material according to the EN1822 -1 regulation



NIVEUS NV100 - Air purifiers standard

The perfect solution for excellent air purification

TECHNICAL DATA

Mains voltage [V]	220-240
Network Frequency [Hz]	50/60
Rated power [W]	88
Maximum room area [m ²]	120
Maximum air flow rate [m ³ /h]	350
Primary filter filtering surface [m ²]	8
Degree of filtration of primary filter material *	ULPA U15
Activated carbon filter filtering surface [m ²]	1
Sound pressure level [dB(A)]	Min.29 - Max 45
Dimensions [L x W x H] - [cm]	41 x 41 x 81
Weight [kg]	32

*Filtration degree of filtering material according to the EN1822 -1 regulation

NIVEUS PROFESSIONAL PURIFIER

NV e NVi Models



NIVEUS NV150 - Air purifiers standard

The perfect solution for excellent air purification

TECHNICAL DATA

Mains voltage [V]	220-240
Network Frequency [Hz]	50/60
Rated power [W]	88
Maximum room area [m ²]	150
Maximum air flow rate [m ³ /h]	500
Primary filter filtering surface [m ²]	8
Degree of filtration of primary filter material *	ULPA U15
Activated carbon filter filtering surface [m ²]	2
Sound pressure level [dB(A)]	Min.29 - Max 43
Dimensions [L x W x H] - [cm]	41 x 41 x 110
Weight [kg]	43

**Filtration degree of filtering material according to the EN1822 -1 regulation*



NIVEUS NV200 - Air purifiers standard

The perfect solution for excellent air purification

TECHNICAL DATA

Mains voltage [V]	220-240
Network Frequency [Hz]	50/60
Rated power [W]	160
Maximum room area [m ²]	200
Maximum air flow rate [m ³ /h]	700
Primary filter filtering surface [m ²]	8
Degree of filtration of primary filter material *	ULPA U15
Activated carbon filter filtering surface [m ²]	2
Sound pressure level [dB(A)]	Min.29 - Max 47
Dimensions [L x W x H] - [cm]	41 x 41 x 110
Weight [kg]	44

**Filtration degree of filtering material according to the EN1822 -1 regulation*

NIVEUS PROFESSIONAL PURIFIER

NV e NVi Models



NIVEUS NV300 - Air purifiers standard

The perfect solution for excellent air purification

TECHNICAL DATA

Mains voltage [V]	220-240
Network Frequency [Hz]	50/60
Rated power [W]	160
Maximum room area [m ²]	300
Maximum air flow rate [m ³ /h]	1250
Primary filter filtering surface [m ²]	13
Degree of filtration of primary filter material *	ULPA U15
Activated carbon filter filtering surface [m ²]	5
Sound pressure level [dB(A)]	Min.29 - Max 51
Dimensions [L x W x H] - [cm]	55 x 55 x 140
Weight [kg]	69

**Filtration degree of filtering material according to the EN1822 -1 regulation*

NIVEUS PROFESSIONAL PURIFIER

NV e NVi Models



NIVEUS 50i 4.0 - Air purifiers 4.0

The perfect solution for excellent air purification

TECHNICAL DATA

Mains voltage [V]	220-240
Network Frequency [Hz]	50/60
Rated power [W]	88
Maximum room area [m ²]	90
Maximum air flow rate [m ³ /h]	300
Primary filter filtering surface [m ²]	4
Degree of filtration of primary filter material *	ULPA U15
Activated carbon filter filtering surface [m ²]	4
Sound pressure level [dB(A)]	Min.19 - Max 45
Dimensions [L x W x H] - [cm]	31 x 31 x 69
Weight [kg]	22

*Filtration degree of filtering material according to the EN1822 -1 regulation



NIVEUS NV100i 4.0 - Air purifiers 4.0

The perfect solution for excellent air purification

TECHNICAL DATA

Mains voltage [V]	220-240
Network Frequency [Hz]	50/60
Rated power [W]	88
Maximum room area [m ²]	120
Maximum air flow rate [m ³ /h]	350
Primary filter filtering surface [m ²]	8
Degree of filtration of primary filter material *	ULPA U15
Activated carbon filter filtering surface [m ²]	1
Sound pressure level [dB(A)]	Min.29 - Max 45
Dimensions [L x W x H] - [cm]	41 x 41 x 81
Weight [kg]	32

*Filtration degree of filtering material according to the EN1822 -1 regulation

NIVEUS PROFESSIONAL PURIFIER

NV e NVi Models**NIVEUS NV150i 4.0 - Air purifiers 4.0**

The perfect solution for excellent air purification

TECHNICAL DATA

Mains voltage [V]	220-240
Network Frequency [Hz]	50/60
Rated power [W]	88
Maximum room area [m ²]	150
Maximum air flow rate [m ³ /h]	500
Primary filter filtering surface [m ²]	8
Degree of filtration of primary filter material *	ULPA U15
Activated carbon filter filtering surface [m ²]	2
Sound pressure level [dB(A)]	Min.29 - Max 43
Dimensions [L x W x H] - [cm]	41 x 41 x 110
Weight [kg]	43

*Filtration degree of filtering material according to the EN1822 -1 regulation

**NIVEUS NV200i 4.0 - Air purifiers 4.0**

The perfect solution for excellent air purification

TECHNICAL DATA

Mains voltage [V]	220-240
Network Frequency [Hz]	50/60
Rated power [W]	160
Maximum room area [m ²]	200
Maximum air flow rate [m ³ /h]	700
Primary filter filtering surface [m ²]	8
Degree of filtration of primary filter material *	ULPA U15
Activated carbon filter filtering surface [m ²]	2
Sound pressure level [dB(A)]	Min.29 - Max 47
Dimensions [L x W x H] - [cm]	41 x 41 x 110
Weight [kg]	44

*Filtration degree of filtering material according to the EN1822 -1 regulation

NIVEUS PROFESSIONAL PURIFIER

NV e NVi Models**NIVEUS NV300 - Air purifiers 4.0**

The perfect solution for excellent air purification

TECHNICAL DATA

Mains voltage [V]	220-240
Network Frequency [Hz]	50/60
Rated power [W]	160
Maximum room area [m ²]	300
Maximum air flow rate [m ³ /h]	1250
Primary filter filtering surface [m ²]	13
Degree of filtration of primary filter material *	ULPA U15
Activated carbon filter filtering surface [m ²]	5
Sound pressure level [dB(A)]	Min.29 - Max 51
Dimensions [L x W x H] - [cm]	55 x 55 x 140
Weight [kg]	69

*Filtration degree of filtering material according to the EN1822 -1 regulation

NIVEUS Technology

4.0 intelligent display

The smart NVi range is equipped with a 4.3-inch touch display and latest generation electronic hardware with integrated professional sensors of CO₂, PM 2.5, humidity, temperature and filter status. It also has a Wi-Fi connection for the continuous remote monitoring of air quality data.

In fact, it is possible to view the air quality data not only on the NIVEUS purifier display, but also remotely, via a portal designed by Netco available to the customer, which can be easily accessed via smartphone, PC or tablet, wherever you are.

From the portal, the customer can completely manage the purifier remotely and monitor the quality data of their air both in real time and in a graphical analysis of the data over time.

NIVEUS 4.0 is no longer just a product, but also an important service for the customer, for the control and improvement of indoor air quality.



CO₂

Monitors levels of CO₂ equivalent in the environment, expressed in PPM (Parts Per Millions)



Particulate Matter

Microscopic particles as small as 2.5 microns in suspension in the air we breathe. They include smoke, bacteria and allergens



Indoor temperature

Monitors indoor air temperature to help maintain a comfortable environment



Indoor humidity

The amount of water vapour in the air expressed as a percentage



Wi-Fi

Indicates the current status of the connection to the Wi-Fi network



Filters

The screen indicates the status of the filters and warns when it is time to replace them



NIVEUS Technology

ULPA Certified Filtration

Filtration technology is extremely important in a professional air purifier as it determines the effectiveness of the device in removing particles and pollutants present in the air.

One of the most important strengths of the NIVEUS range is precisely the filtration technology. Unique in its kind, NIVEUS differs from the competition because it manages to obtain, with its ULPA U15 certified filter, efficiencies above 99.9995% with particles of infinitesimal dimensions of 0.026 Microns (thousandths of a millimetre), one fifth of the single Covid virus.

The filtration technology of NIVEUS can be expressed in 4 main points:

Multi-layer mechanical filtration technology

- 1. ULPA Certified Efficiency**
- 2. Sizing of the filter material**
- 3. Tests and certifications**

1. Multi-layer mechanical filtration technology

Mechanical filtration technology filters the air, trapping and blocking harmful substances and organisms. The "multi-layer" solution is used to combine in a single filter: very high efficiency, excellent resistance and durability, thanks to an innovative 3-layer fabric in which the two initial and final layers protect and preserve the central core of the filter at very high efficiency.

Mechanical filtration technology is the most recommended one internationally (European, American and Australian regulations) and its level of efficiency is regulated by the international HEPA classification.

This technology is used, unlike other technologies (UVC, Ozone and Ions), to purify the air completely from all types of pollutants and organisms, namely: fine dust, allergens, bacteria and viruses, removing them from the air, in complete safety, and without releasing other substances into the air or creating risks for people.

2. Certified ULPA efficiency

The ULPA filtration classification (Ultra Low Particulate Air), is the maximum level of efficiency achievable in mechanical filtration technology.

This classification is certified and recognised worldwide (ULPA is in fact the highest grade of the international HEPA classification) and is up to 10/100 times more efficient than the best known HEPA class.

The ULPA U15 grade filters block micro particles with dimensions of 0.026 Microns (thousandths of a millimetre) with certified efficiency higher than 99.9995%. NIVEUS, compared to the competition, is unique in its kind, with a ULPA certified efficiency.

EN1822 CLASSIFICATION

Filters Group	Class	MPPS Integral Values		MPPS Local Values	
		Efficiency %	Penetration %	Efficiency %	Penetration %
EPA	E10	85	15	-	-
	E11	95	5	-	-
	E12	99,5	0,5	-	-
HEPA	H13	99,95	0,05	99,75	0,25
	H14	99,995	0,005	99,975	0,025
ULPA	U15	99,9995	0,005	99,9975	0,0025
	U16	99,99995	0,00005	99,99975	0,00025
	U17	99,999995	0,000005	99,9999	0,0001

3. Sizing of the filtering material

The quality of the filter material (ULPA) determines the extreme filtration efficiency (99.9995%), but the quantity of material is also very important for maximum purification efficiency and durability. In the NIVEUS range of professional purifiers the quantity of filter material is oversized, for maximum efficiency and resistance over time.

The NIVEUS ULPA filters are very large (more than twice as large as competing filters), and are built with a high quantity of ULPA filtering fabric (8 to 13 square meters).

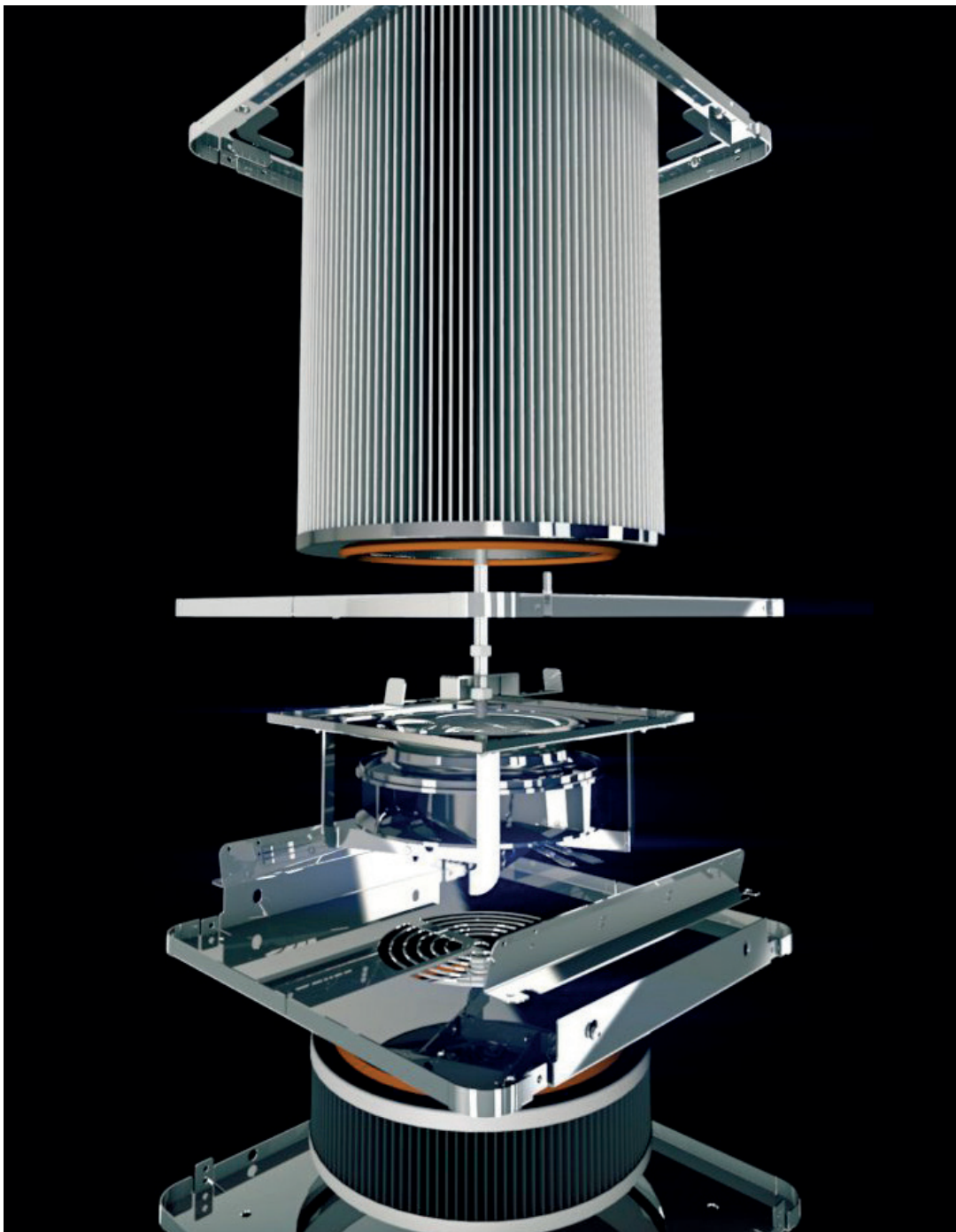
The NIVEUS purifiers also have activated carbon secondary filters (reduction of VOC fumes and odours) whose dimensions vary from 1 to 5 square meters (depending on the models of the NIVEUS range).

4. Testing and Certifications

The quality and efficiency of professional purification can be validated by important international bodies. Filters from the NIVEUS range have been tested and certified against the main polluting micro-particles (0.1 Micron) including viruses, bacteria and allergens.

In particular, NIVEUS has been tested against the Sars-Cov-2 virus with an efficiency result of more than 99.9%.

In addition, it has been certified by the international body ECARF (European Centre for Allergy Research Foundation) and the result of eliminating allergens in the air was greater than 99.999%.





NIVEUS Technology

Tested Fluid Dynamic Efficiency

Fluid dynamics is the science of fluid mechanics that studies the behaviour of liquids and gases in motion. In an air purifier, it represents the ability of a purifier to generate volumes and air flows such as to be able to efficiently and uniformly purify the entire volume of an indoor room.

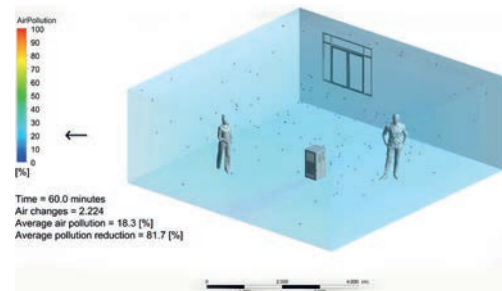
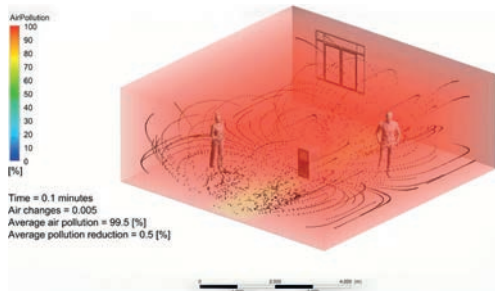
In order to purify the air, a purifier, placed and fixed in a point of an indoor room, must be able to capture the polluted air in each point of the room itself and carry it to its filter to be purified and to efficiently emit the correct volumes of pure air, instead of the polluted air that is captured and filtered.

The fluid dynamics in an air purifier are very important and without them a purifier cannot work properly.

The NIVEUS fluid dynamics have been tested by specialist laboratories and allow complete and rapid purification of the air of an indoor environment.

Fluid Dynamic Testing - Purification Efficiency

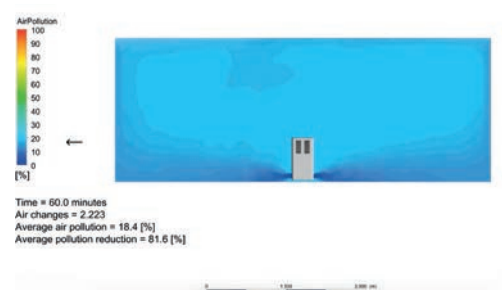
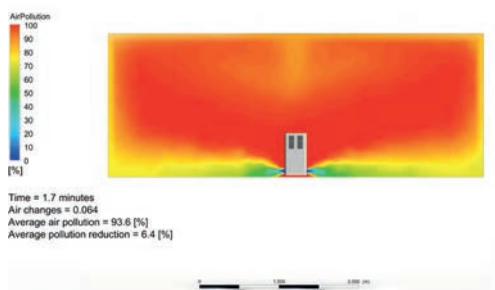
- Reproduction of actual condition of pollution in an indoor environment
- Simulation with 0.12 micron particles
- (representative size of viruses and bacteria)



Scan the QR-Code
and watch the
demonstration video

Fluid Dynamic Testing - Purification Time

- Reproduction of actual condition of pollution in an indoor environment
- Simulation with 0.12 micron particles
- (representative size of viruses and bacteria)



Scan the QR-Code
and watch the
demonstration video



NIVEUS Technology

Measurable results

One of the most important strengths of NIVEUS is the filtration efficiency. With its ULPA filter (highest grade of the HEPA classification) NIVEUS successfully obtains very high filtration efficiencies, i.e. it manages to capture over 99.9995% of the micro particles of infinitesimal dimensions of 26 nanometers (0.026 microns), a fifth of the single Covid virus.

HEPA 14 or 13 filters, generally installed in competing air purifiers, are 10/100 times less efficient than ULPA filters. This extreme filtration capacity of NIVEUS has been certified by numerous tests and certifications.

Thanks to this filtration efficiency, NIVEUS manages to suction up the polluted air of an indoor room (capturing harmful microparticles) and at the same time to emit pure air throughout the volume of the room itself.

The air quality produced by NIVEUS is pure and free from pollutants (Fine Dusts, Bacteria, Allergens, Viruses, Odours, Smokes, VOCs) and is perfectly measurable with professional instruments and sensors. NIVEUS is a professional air purifier that gives concrete and measurable results in terms of air quality improvement.



NIVEUS Technology

Energy consumption and maintenance

Very Low Energy Consumption

- Average Consumption: 30/70 Watt
- Maximum Consumption: 88/166Watt

Easy Maintenance

The only maintenance required is the change of filters every 6,000 working hours or 2 years of use.



Scan the QR-Code
and watch the
demonstration video



NIVEUS Technology

Mobility and ease of use

NIVEUS is a very simple product to use and does not require any installation, only needing to be connected to an electrical outlet, like a normal appliance.

In addition, it is equipped with swivel wheels for easy positioning and movement in the various rooms.



Scan the QR-Code

and watch the
demonstration video



NIVEUS Technology

Quietness

The range of NIVEUS professional purifiers has been designed to be high-performing but also very quiet. The average noise values are very low with respect to the safety standards and are between 29dbA and 45dbA.

It is also possible to adjust the speed and power of the purifier (5 levels from minimum to maximum) in order to obtain the optimal level of silence for each type of indoor environment.

Status


FORCE DISABLE

NAME 

LOCATION IP Milan, Italy

FIRMWARE v. 14 dv. 6

LAST READ 21 February 2023 12:45

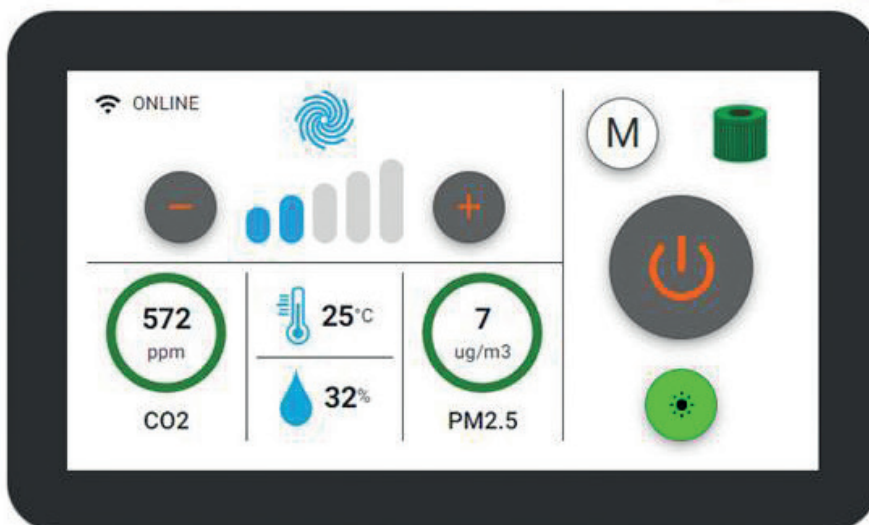
FILTER  133 PaCO2  572 ppmPM2.5  7 ug/m3

TEMPERATURE 25 °C

HUMIDITY 32 %

WORKED HOURS 415 h

FILTER HOURS 415 h



TRENDS ALARMS NOTES CONFIG

NIVEUS Technology

Smart Technology 4.0

Remote control of air quality values

Latest generation product "Smart technology 4.0", equipped with a 4.3" smart display with built-in professional sensors of Co2, pm2.5, humidity, temperature and filter status.

This information makes it possible to monitor the air quality of an indoor space in real time and can be used by the purification system to automatically adjust the ventilation speed and the quantity of purified air in order to keep the air always clean and healthy.

The data of one or multiple purifiers can also be viewed via a simple Netco portal (with a phone, PC or tablet) that allows the customer to monitor the air quality values of one or more rooms and interact with the functions of the purifier.

NIVEUS 4.0 is no longer just a product, but also an important service for the customer, for the control and improvement of indoor air quality.



NIVEUS Technology

3D Design

Indoor air purification is a critical activity that requires the correct sizing based on the volumes of air to be purified and the number of people present in the rooms.

Netco engineers, with extensive experience in the field, provide customised and complete solutions for optimal purification.

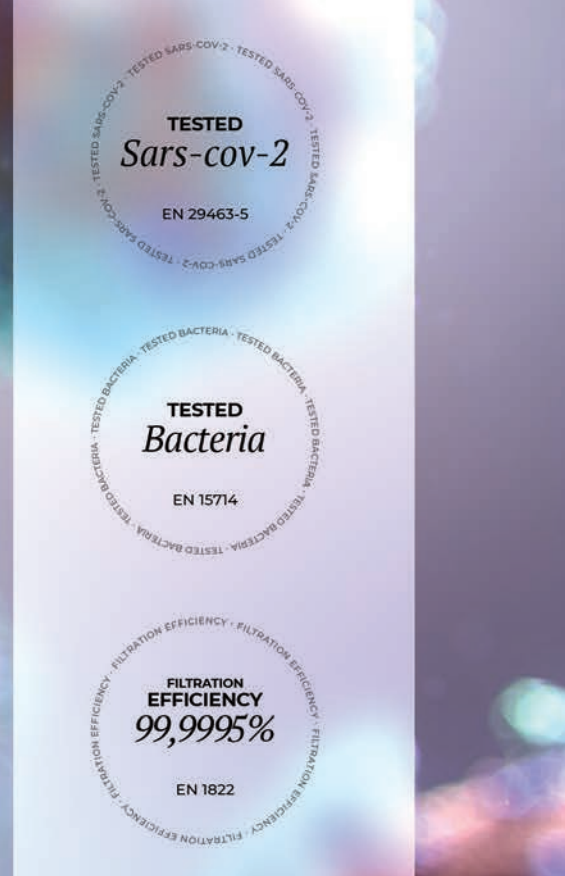
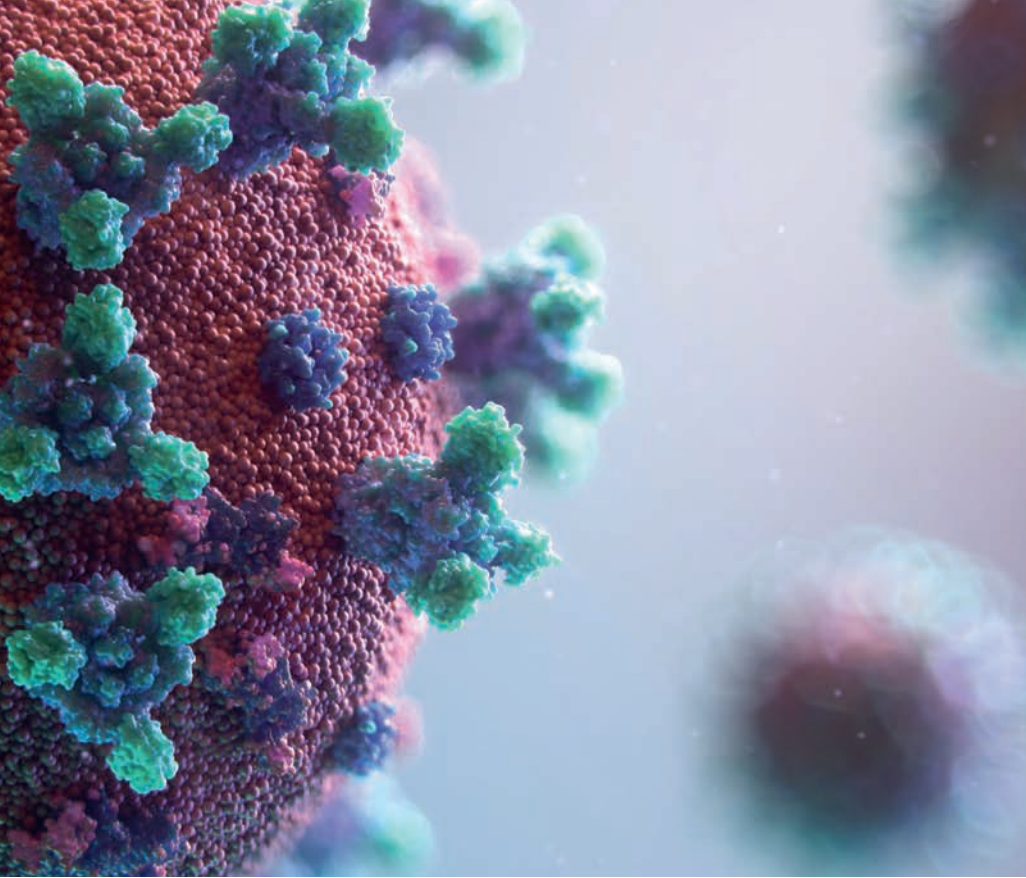
Thanks to their expertise and technical know-how, every request is followed step by step to provide a complete and effective solution.

Netco develops a customised project for each customer, describing the machines and the parts that compose it and their positioning in the space, accompanying everything with technical drawings and 3D rendering images to show the customer how the project will be implemented.

The technical project is very detailed and takes into account several key factors such as:

- Specific assessment of the facility in question
- Spatial and dimensional study
- Total air volume analysis
- Optimal air exchange analysis
- Positioning study for maximum purification effectiveness

Thanks to their attention to detail and expertise, Netco engineers ensure customised solutions that deliver concrete and measurable results of air quality improvement in indoor environments.

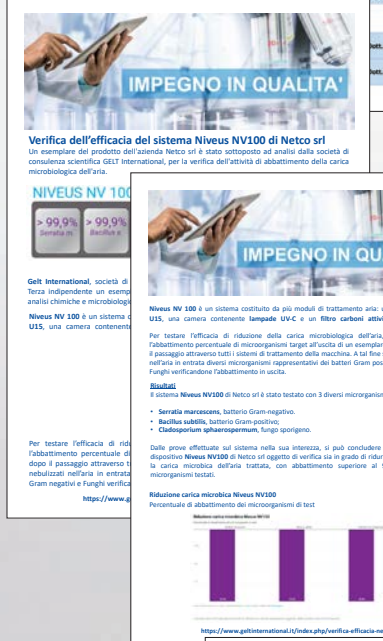
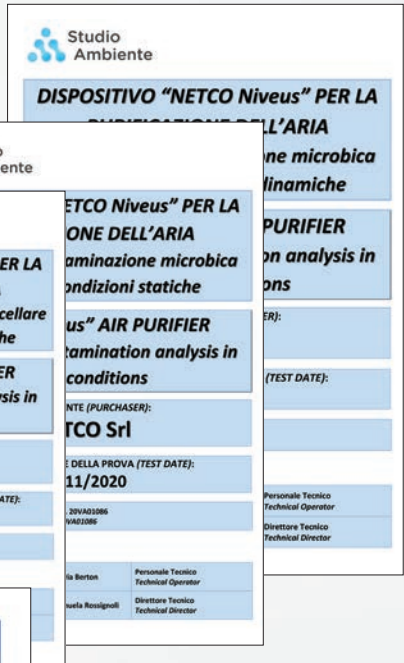


NIVEUS Technology

Tests and certifications

NIVEUS is a multi-certified product, with guarantees of health protection of people and also tested against the Covid-19 virus.

- ISO 9001 quality certificate
- ISO 14001 quality certificate
- Analysis of microbial and bacterial removal in static conditions
- Analysis of microbial and bacterial removal under dynamic conditions
- Microparticle removal analysis under static conditions
- Microparticle removal analysis under dynamic conditions
- Bacterial load removal efficiency test
- ECARF certification - Allergy removal
- SARS-Cov-2 virus filtration efficiency test
- Filter efficiency test according to EN 1822 and ozone-free test
- Electromagnetic compatibility test report
- ULPA U15 filter filtering efficiency test according to EN 1822



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Virgin Active



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BASE Milano



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Solarelit



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