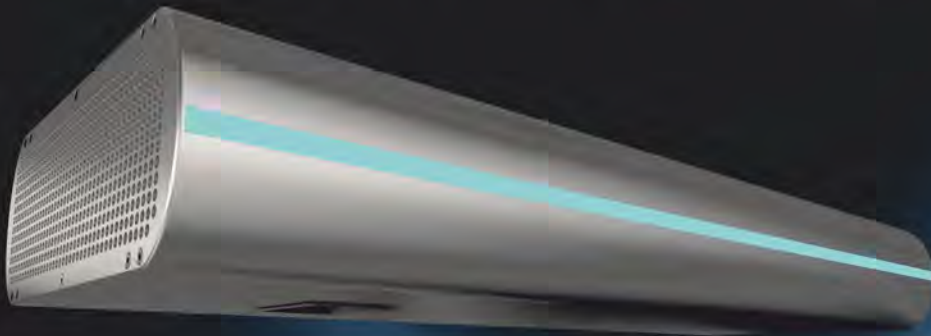


STERIAL

Premium Air Purifier



STERIAL I
Premium Air Purifier



STERIAL II
Premium Air Purifier

STERIAL Premium Air Purifier is an Innovative, Certified Air Purification device, which virtually eliminates microbial and viral air load (purifies the air) and is particularly effective against the Coronavirus, as within the first 15 minutes of its operation it can kill up to 70.62% of the SARS-CoV-2 virus that causes Covid-19 disease.

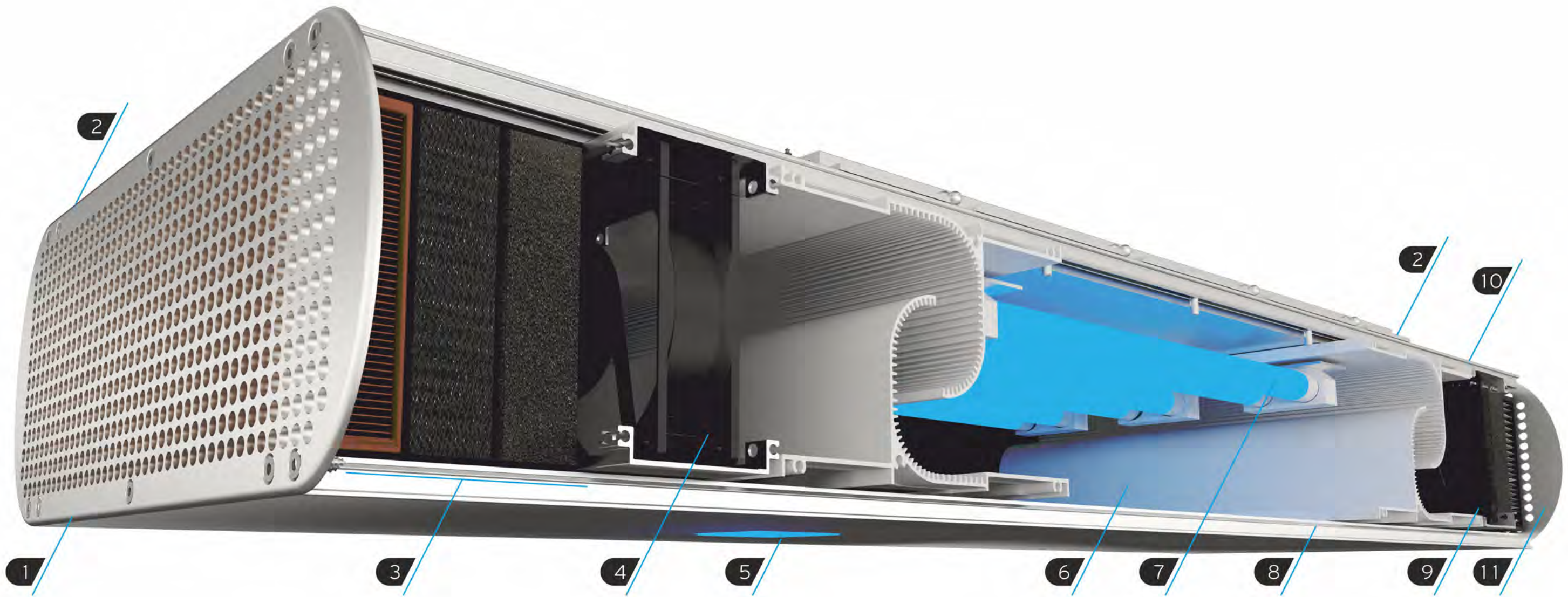
This device is suitable for use in indoor spaces, where groups of people gather, especially areas of high mobility (e.g., public transport, offices and workplaces, residential areas, etc.).

The innovation that **STERIAL Premium Air Purifier** brings is its method of active purification, which means that it doesn't just filter the air, but actively eliminates pathogenic organisms which exist or invade the areas, thus ensuring real air purification in a completely safe way for those gathered inside.

STERIAL Premium Air Purifier is a unique world class system that uses patented "triple barrier" technology.

"Triple barrier" technology is implemented through the simultaneous use of:

- (a) special active purifying filters, impregnated with patented organic polymers
- (b) powerful ultra-violet UV-C ray technology
- (c) additional special active filters, impregnated with patented organic polymers



Technical features

- 1 Fresh air outlet (without trace elements and microbial micro-organisms).
- 2 Power deactivation switch in case of violation, to protect from UV-C radiation
- 3 Second array of three different filters, with HEPA 14 stage.
- 4 Silent compression fans of two (2) and four (4) speeds (Sterial I & II respectively), high performance (35db – 65db at 450m³/h)
- 5 Touch screen – Device control panel and basic air data report.

- 6 Radiation chamber with double aluminium walls, for total protection against the UV-C radiation escape.
- 7 UV-C high power lamps (3 X 40W).
- 8 Reflective surface for multiplication of UV-C radiation power.
- 9 Array of three (3) different active filters, impregnated with patented organic polymers. These don't only filter the microbes but also destroy and eliminate viruses and microbes. Environmentally friendly.
- 10 Electric power switch, with safety fuse.
- 11 Air intake.

How it works

The device can be fixed horizontally on the ceiling (STERIAL I) or vertically in a location of your choice (STERIAL II) Once plugged in, the device can start to operate without any further adjustments.

At the device's inlet there is a first arrangement of filters comprising 3 different filters: a) PPU20 class G3, b) Carbon Filter, c) ALU mesh Filter. These essentially function as pre-filters for the air inside the device and are impregnated with patented organic polymers.

After the first stage, the air makes its way inside, where, after strong UV-C radiation, it continues to get purified as it goes towards the exit, entering the second array of three different filters: a) ALU mesh Filter, b) Carbon Filter, c) HEPA 14 Filter. These particular filters contain and eliminate all the remaining residues from the previous processes, releasing the air once again into the environment, now healthy and free - to an extremely high degree - from viruses, bacteria, microbes and micro-organisms in general.

Basic functions of touch screen

- Fan power adjustment
- Power mode (high power for 5 min)
- Warning for burnt-out lamp
- Warning for clogged filters
- Warning for fan malfunction
- Automatic shutdown in case of disassembly of the device
- Deactivation at low voltage (Bus model - only STERIAL I)
- LED brightness adjustment

Specific technical features

/ Special coating of the internal surfaces

The surfaces of the device's input and output chambers are coated in a special nanotechnology material.

/ High efficiency filters

The device has two arrays of filters with three filters each. These arrays of filters are specially designed not just to filter viruses and microbes (as happens with common filters in similar devices) but to actively operate towards fighting them also. This is achieved by impregnating the filter with patented polymer material.

- Environmentally friendly as regards their handling
- Certified for the way they destroy viruses and eliminate microbes.
- Impregnated with patented polymer material
- Easy to replace

/ Fast air flow

Air flow in the STERIAL Premium Air Purifier is at 450m³/h speed. The device has been designed to create a fast flow of incoming air.

/ Low - power consumption technology (LOW-P)

STERIAL I Premium Air Purifier saves as much energy as possible. Thanks to the device's technologically advanced materials and purpose-designed special arrangement, a high airflow (to ensure that a sufficient volume of air is purified) is achieved using low-power motors.

/ Low - noise technology (LOW-N)

The device operates in a way to produce the lowest-possible noise levels. This is achieved by the use of high-performance low-load motors and smart design.

/ Safety technology

The device offers:

- Filter clogging detection and user alert sensors
- A special system that instantaneously interrupts the device's operation, should there be an attempt (intentionally or not) to break into the interior.

Technical features – Basic functions



STERIAL I
Premium Air Purifier I

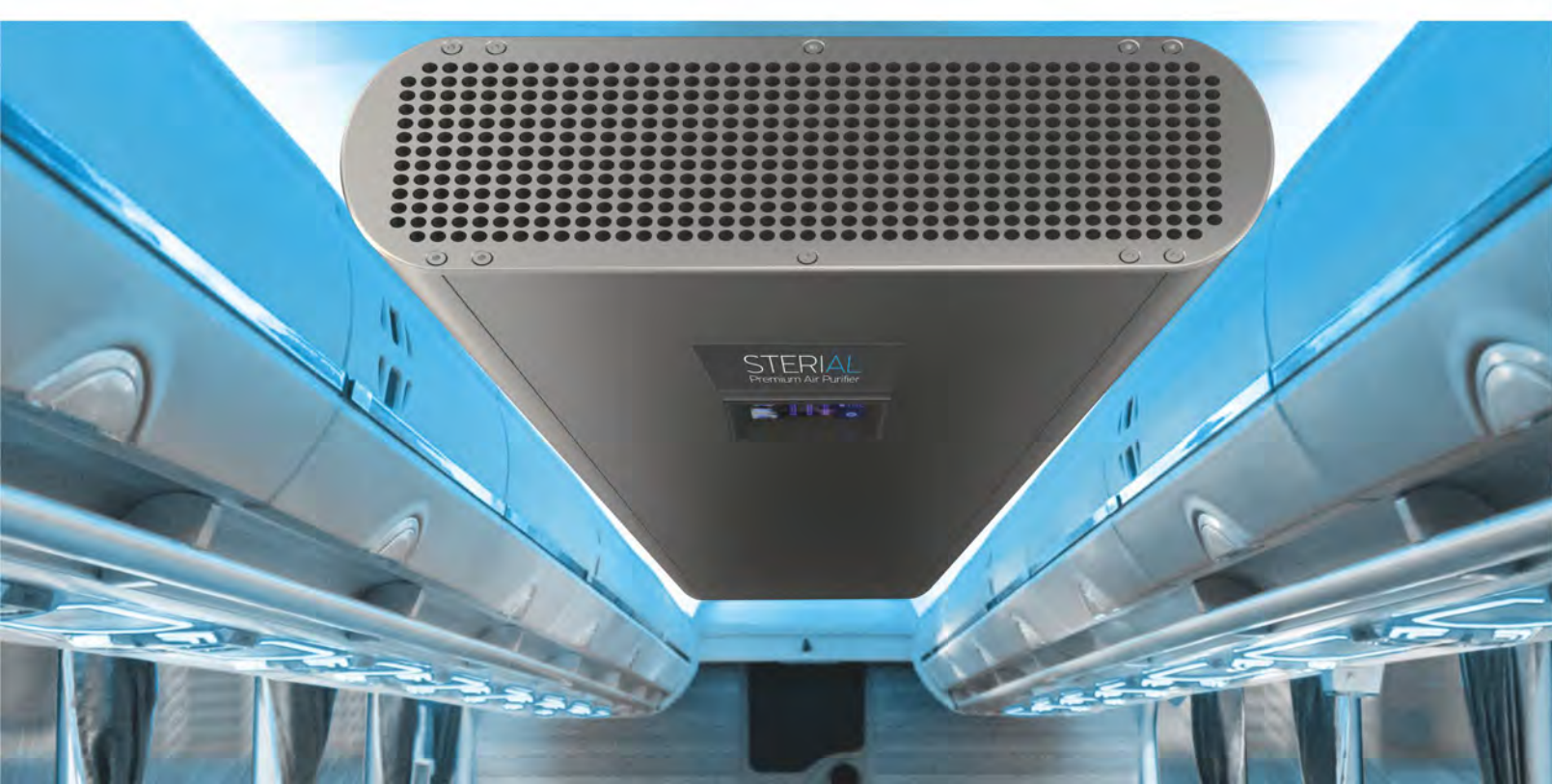
Air purification
technology

- 7 filtering levels
- Active filtering with filters impregnated with a patented solution
- UV-C
- HEPA 14

Features

STERIAL I
Premium Air Purifier I

Dimensions (LxWxH)	110cm x 42cm x 15cm
Weight	30 Kg
Power	300 W
UV lamp power	3 x 40 W
Maximum flow	450 m ³ /h
Noise	35db – 65db
Filter life	Max 2000 h
Screen	Color 3.5" TFT
Mounting base	Fixed ceiling or using brackets



STERIAL II
Premium Air Purifier II

Features

STERIAL II
Premium Air Purifier II

Dimensions (HxWxD)	143cm x 42cm x 15cm
Weight	37 Kg
Power	300 W
UV lamp power	3 x 40 W
Maximum flow	450 m ³ /h
Noise	35db – 65db
Filter life	Max 2000 h
Screen	Color 3.5" TFT
Mounting base	Fixed or trolley

Certifications

The air purification device has the required technical and laboratory certifications.

TECHNICAL CERTIFICATIONS

1. Certification ISO 9001 (Manufacturer)
2. Declaration of Conformity / CE, which is accompanied by complete technical documentation that includes all the individual elements, the tests of the device (EMC test) and the respective certifications of its individual accessories as well.

LABORATORY CERTIFICATIONS

1. **ATTESTATION** from the National Center for Scientific Research "Demokritos", for the test of the device regarding the non - escape or emission of ultraviolet radiation (UV-C, UV-A, UV-B) from it.
2. **ATTESTATION - CERTIFICATION** from the University of Patras, Hygiene Laboratory*, for the inspection of the device regarding the produced air through specification of the particulate matter.
3. **ATTESTATION - CERTIFICATION** from the University of Patras, Department of Chemistry, regarding the suitability of the materials that are used for the filters of the device.
4. **ATTESTATION - CERTIFICATION** from the University of Patras, School of Medicine - Hygiene Laboratory*, regarding the effectiveness of the device against bacteria, viruses and microbes and special attestation about the new coronavirus SARS-CoV-2, which causes COVID-19 disease.
5. **CERTIFICATION OF NON-TOXICITY** from the University of Patras, Hygiene Laboratory*, regarding the non-toxicity of the filters.
6. **CERTIFICATION OF PURITY** of the Produced Air, from the National Center for Scientific Research "Demokritos".

7. **CERTIFICATION of Non-Ozone Production** Production from the National Center for Scientific Research "Demokritos".

8. **MEASUREMENT REPORT** of dust emissions by Alfa Measurements*

*The laboratory is level 2 and is accredited according to ELOT EN ISO/IEC 17025 by the Hellenic Accreditation System (ESYD).

SPECIAL NOTE

Two (2) patents for **STERIAL III Professional Air Purifier** have been filed with the Hellenic Industrial Property Organization. Specifically:

- Patent No. 231 - 0004071711 (filed under No. 20210100071)
- Patent No. 231 - 0004074827 (filed under No. 20210100073)

This device is a result of Greek invention and manufacturing, and it was developed under the collaboration of the following Greek laboratories and companies:

- ALUMIL SA
- Metricon Digital systems
- University of Patras / School of Medicine / Hygiene Laboratory
- University of Patras / Department of Chemistry / Laboratory of Advanced polymers and hybrid Nano materials
- Filtrex - Filter solutions
- Ringel electronics
- GLM Hellas SA

REDUCTION OF MICROORGANISMS

Operating time	ECOLI	Adenovirus	SARS-CoV-2 (COVID-19)
15 minutes exposure	29,59%	77,36%	70,62%
30 minutes exposure	90,82%	91,04%	98,14%
60 minutes exposure	99,13%	96,67%	99,40%

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