

Adaptive sanitizing system

Natural

Environmentally sustainable

Integrated



IEC 60598

IEC 62471

EN 62471



LAD+ is an advanced, continuous, and automatic air and surface sanitization system.

The modular and customizable LAD+ system can be expanded even after the initial installation.

LAD+ effectively sanitizes the air, surfaces, and objects in a room, eliminating viruses and bacteria without generating forced air movement. This prevents dust and airborne particles from being dispersed into the environment.

LAD+ Sanitizing Units replicate the natural sanitizing effect of sunlight indoors, utilizing carefully selected UV combinations that have been rigorously tested at accredited institutions. These UV solutions are safe for both humans and animals.

Designed for complete autonomy, LAD+ ensures a consistently healthy environment without requiring human intervention. The system intelligently switches between different operating modes as needed.



It is scientifically proven that certain wavelengths of UV rays damage the DNA and RNA of viruses and bacteria, rendering them harmless and ultimately eliminating them.

LAD+ has applied this knowledge to develop a system that utilizes and combines specific types of UV rays, maximizing the sanitizing effect while fully complying with EN62471 – Photobiological Safety standards.

The LAD+ system operates in three different modes, each using specific combinations of UV radiation at varying intensities:

CONTAINMENT MODE

Automatically activated in the presence of people, this mode reduces the number of viruses, bacteria, and other organic substances released into the environment. It operates with a combination of low-intensity UV radiation, equivalent to the level of UV exposure from the sun at 8:00 AM on a summer morning.

ECO MODE

Automatically activated in the absence of people, this mode performs a thorough sanitization of the room overnight using a combination of medium-intensity UV radiation. If the sensors detect movement in the room, the system immediately switches back to Containment Mode.

STRONG MODE

This mode can only be activated manually when no people are present. It is designed for rapid air and surface sanitization in under 30 minutes using a combination of high-intensity UV radiation. The system prevents activation if people or animals are detected and will immediately stop the cycle if movement is detected in the treated area.

LAD+ sanitizing units are equipped with two independent detection sensors that utilize different technologies.

The system automatically switches between operating modes as soon as one of the sensors detects the presence of people or animals.



Natural

The LAD+ System safely replicates the sun's sanitizing action, ensuring a 98% reduction in contaminants—safe for both people and animals.



Environmentally sustainable

Compliant with standards and non-toxic, it leaves no chemical residues, requires no ventilation after sanitization, produces no waste, does not alter humidity levels, and emits no harmful ozone (Legislative Decree 81/2008).



Customized

Easy to install by the end user or a professional. For larger projects, Nature Light provides expert consultancy and proprietary software to optimize unit placement.



Smart

Operates automatically and independently, with select modes controllable remotely via the dedicated Web App.



Compact and easy to install

Small and discreet, the units can be ceiling-mounted (2.5m–6m) or integrated into false ceiling panels, ensuring minimal aesthetic impact.



Conveniente

Once installed, the system requires no consumables, maintenance, or filter replacements. It operates with optimized energy use and is designed to last over 30,000 hours.



Scientific Validation & Testing

During product development, safety and performance tests on LAD+ were conducted and later repeated in accredited Italian laboratories.

LAD+ technology's effectiveness was evaluated using specialized protocols, ensuring full compliance with the scientific method. The tests involved inoculating identical amounts of pathogens onto growth-friendly mediums.

Following scientific methodology, some plates served as "Positive Controls," remaining unexposed to LAD+ to allow natural pathogen growth.

The images illustrate a direct comparison between untreated control plates and those exposed to LAD+ technology, highlighting its effectiveness.

SARS-CoV2 test results ¹

SARS-CoV-2 inactivation was verified by an authorized laboratory.

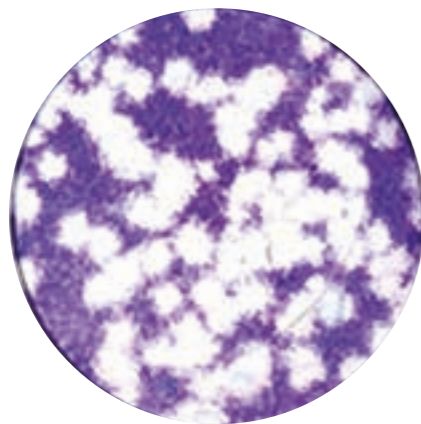


Plate with untreated SARS-CoV2

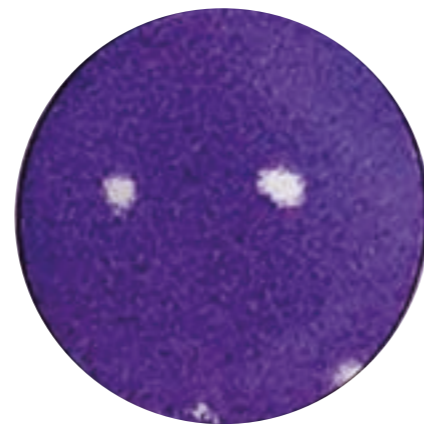


Plate with SARS-CoV2 TREATED with LAD+

¹ "Technical report on the experimental procedures and results performed to test the effect of light for the inactivation of SARSCoV-2 using the technology of AZ Solutions Srl."

Test results on the Staphylococcus aureus bacterial strain ATCC25923²

The sanitizing capacity was tested on Staphylococcus aureus bacteria at a university laboratory.



Plate with untreated Staphylococcus

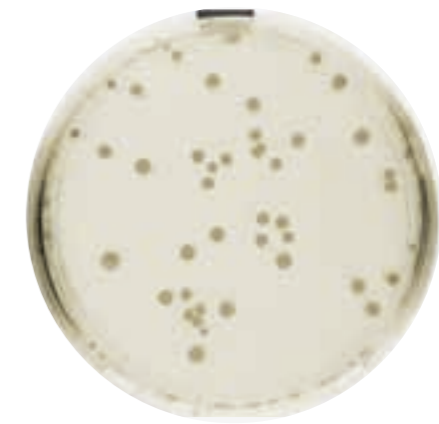


Plate with Staphylococcus TREATED with LAD+

² "Final report bacterial count abatement prot. no. 0069236"



LAD+ ring

CE ✓RoHS IEC 60598 IEC 62471 EN 62471 **PATENTED**

On ceiling external unit solution.



Finishes

PLEXIGLASS

 Matt white

 Black 020P

Finiture Ring

ALUMINIUM

 WhiteE RAL 9003

 Black 020P

 Titanium 041P

LAD+ zero

CE ✓RoHS IEC 60598 IEC 62471 EN 62471 **PATENTED**

Ceiling-level solution



Finishes

PLEXIGLASS

 Matt white

 Black 020P



LAD+ fly

Suspended solution.

CE ✓RoHS IEC 60598 IEC 62471 EN 62471 **PATENTED**



Finishes

PLEXIGLASS

 Matt white

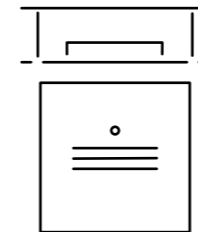
 Black 020P



LAD+ square

Modular ceiling solution 60x60

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Finishes

ALUMINUM

 White RAL 9003



In multiple installations with connection units, the LAD+ system is designed to manage device activity and optimize their effectiveness in sanitizing rooms. The number, type, and models are determined based on the specific project and are configured as follows:



Sanitizing units installed in rooms based on size, furnishings, lighting, occupancy rate, and aesthetic and functional requirements.



Connectivity unit for data management and processing of the sanitization index in rooms, as well as management of system settings (alerts, diagnostics, data history, operating percentages, radiation levels, etc.).

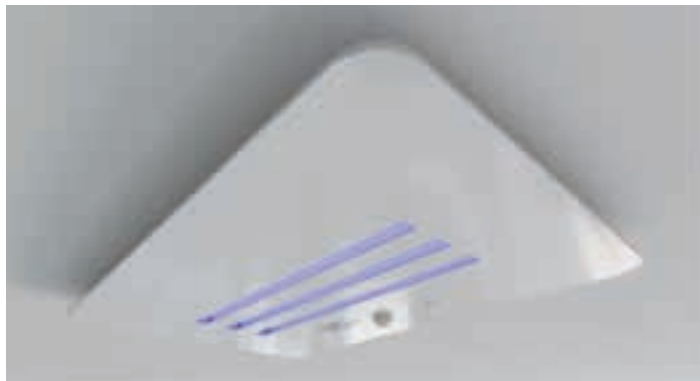


Touchscreen panel displays operating mode, history, and management of specific commands. It can be virtual, accessed via a dedicated URL on mobile, tablet, or PC, or physical, with a touchscreen panel installed on-site.

LAD+ space

CE ✓RoHS IEC 60598 IEC 62471 EN 62471 **PATENTED**

Partially recessed solution



Finishes

PLEXIGLASS

 Matt white

 Black 020P

1

Supervision of sanitizing unit operations, providing real-time insight into the sanitization level achieved in each individual room.

2

Device diagnostics and data logging, including operating times, irradiated energy, and achieved sanitization indices.

3

Ability to integrate with other Internet of Things (IoT) systems.

4

Remote visualization for multi-location setups.





The patent, test results from accredited Italian laboratories, and certificates of conformity from authorized bodies confirm that LAD+ is an effective, safe, and innovative product.

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