HEALTHY BUS PROJECT

DRIVER SAFETY WALL
and INTERNAL SANITIZATION SYSTEMS VIA PHOTOCATALYSIS

CARROZZERIA TRASFORMAZIONI

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MUSSA & GRAZIANO s.r.l.

HEALTHY BUS Project

VEICOLO SICURO
Sanificazione continua

carrozzeria
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THE NEW SAFETY FOR COLLECTIVE TRANSPORT:

DRIVER SAFETY WALL

A VERSATILE PRODUCT THAT CAN BE MADE ON ANY VEHICLE

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THE NEW ENVIRONMENTAL CONTAINMENT SAFETY DIVIDER FOR YOUR VEHICLES

- High level of protection for operators when transporting passengers
- Effective separator for containing bacteria from the passenger compartment
- Effective driver safety separator
- A system with a gate that can be opened, which allows the passage between the two environments

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ALL IN ONE PRODUCT

Protection against physical contact

Protection against salivary secretions

Protection against the risk of aggression

Protection against the risk of intrusive material

A great thermal insulation system

A great sound insulation system

An aid against air contamination in the driver cabin

Ideal against driver distraction

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FOR PROFESSIONALS AND MORE

Ideal for shuttles dedicated to the collective transport of personnel

Ideal for driver protection and related corporate code of ethics 231

Environment with air sanitization system isolated from the cockpit (opt)

Ideal for better acoustic and thermal comfort of the two vehicle environments

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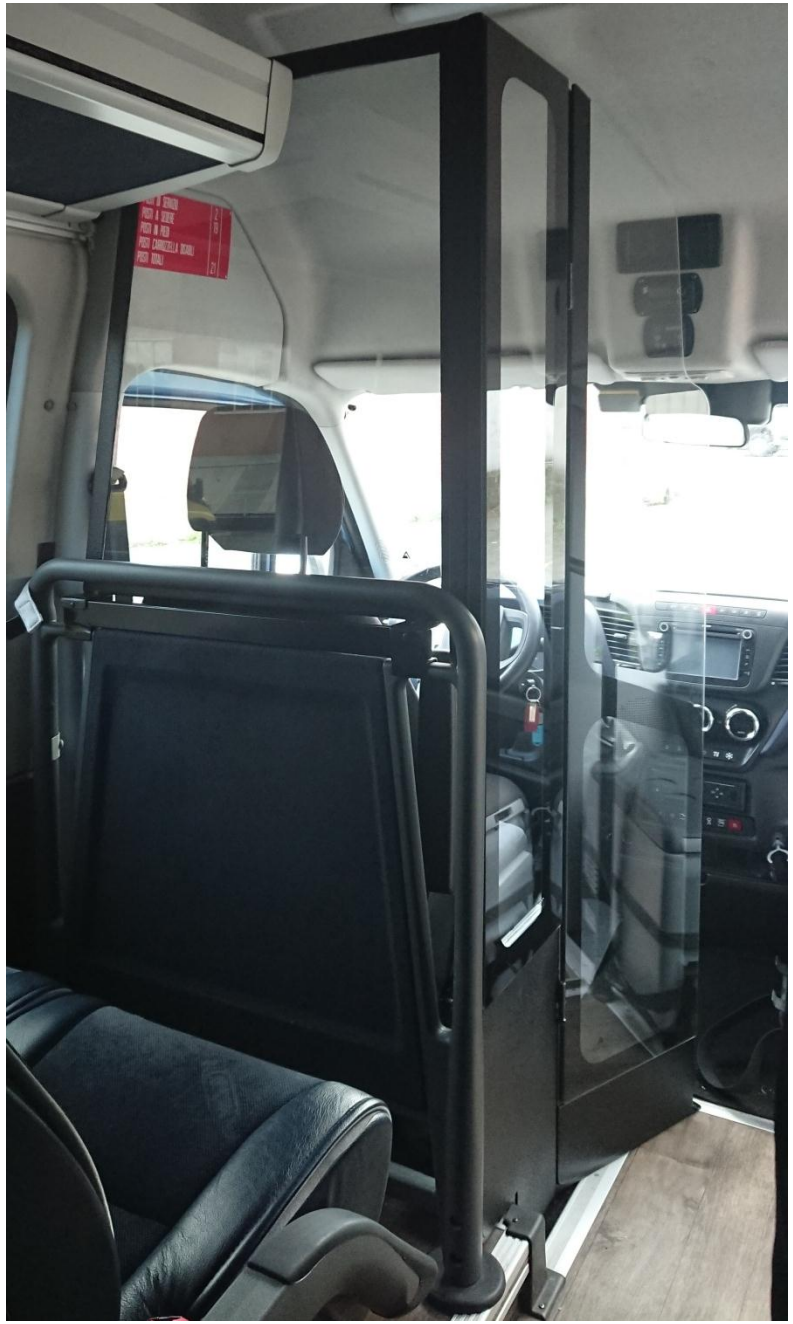

AN ACCESSORY DESIGNED TO PROTECT DRIVERS

The Driver Safety Wall is made in accordance with the rules laid down in Regulation UNECE 107 (Uniform provisions relating to the approval of M2 or M3 category vehicles) and the UNECE 43 Regulation (uniform requirements relating to the approval of materials for glazing and their assembly on vehicles), in addition the presence of the wall does not interfere with any safety body (see safety belts , R66 "anti-tipping", seats, shape passages, etc.)
The wall is made of steel with a cataphore treatment complete with 6 mm thick approved glass. The same will be equipped with a coin drawer (integrated directly on the door glass) and sanitizing support.
An installation certificate will be released.

- HIGH LEVEL OF THERMAL AND ACOUSTIC INSULATIONVETRATURE TEMPERATE
- WASHABLE AND SANITABLE COATING
- SHATTERPROOF STRUCTURE ATTACHED TO THE VEHICLE
- LATERAL HANDRAIL TO HELP GET INTO THE VEHICLE
- HANDS IGIENIZING GEL BOTTLE SUPPORT
- OPENING DOOR FOR TICKETING

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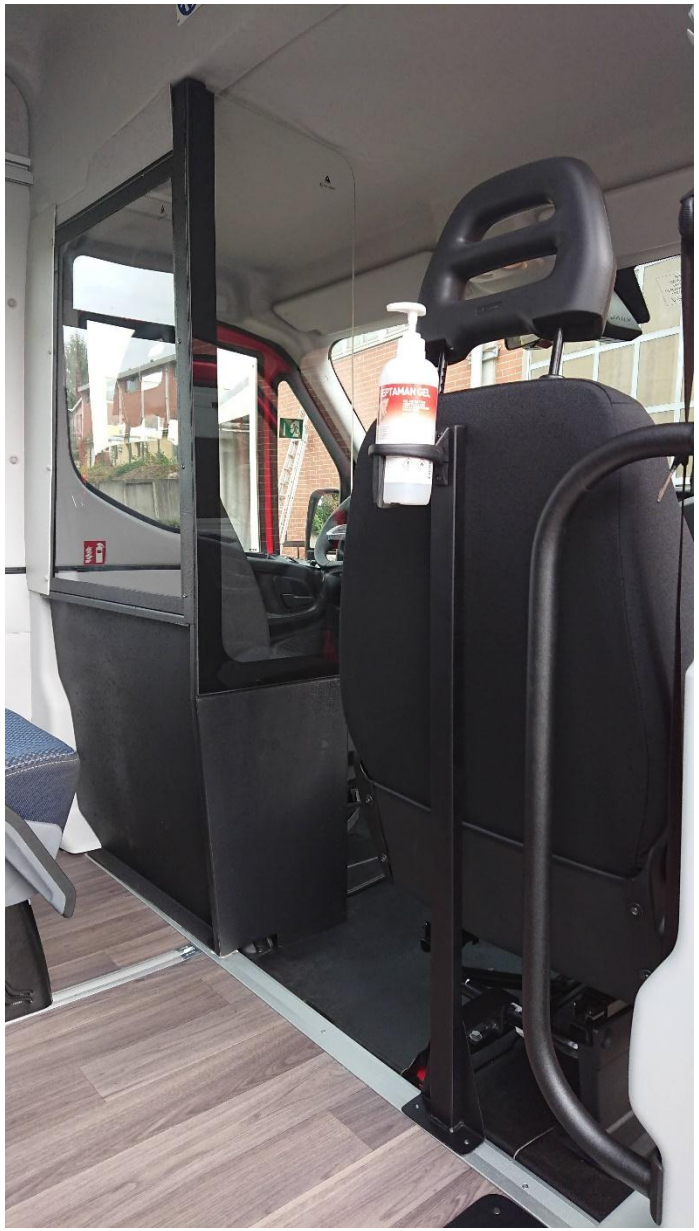
TWO ENVIRONMENTS THAT HAVE ALWAYS BEEN COMMUNICATING, FROM **TODAY** ONLY WHEN NECESSARY

The Driver Safety Wall allows an environmental separation of the two areas of the vehicle (driving compartment and passenger compartment), not inhibiting accessibility to seats, maneuvering spaces, luggage compartment and entry from the passenger door. This is thanks to the structure perfectly integrated with the vehicle.



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UNCHANGED COMFORT IN THE DRIVING CAB AND A PASSENGER COMPARTMENT AS IN ORIGIN

- Spaces and accessibility to places unchanged as originally
- Increased efficiency of the rear climate (less thermal dispersion in the cockpit)
- Increased rear heater efficiency (less thermal dispersion in the cockpit)

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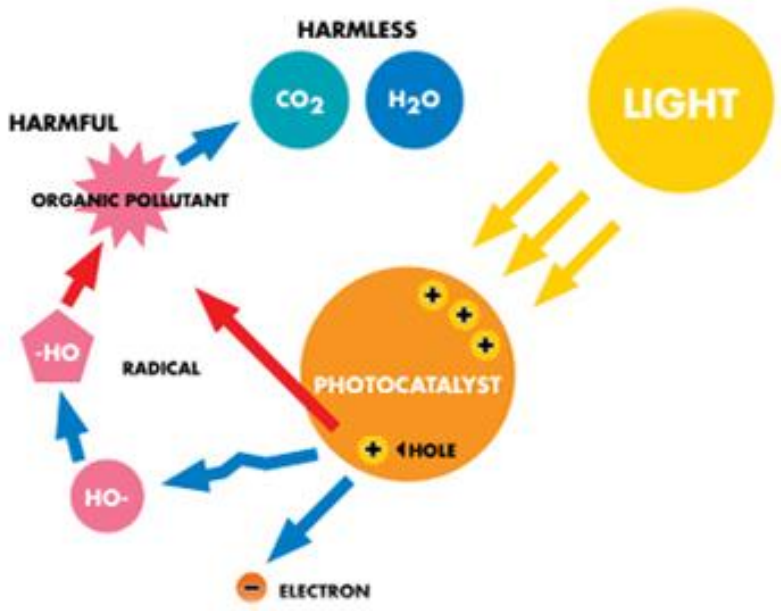
SANICLIMA W200: AIR SANITIZATION IN THE PASSENGER COMPARTMENT

In combination with the **Driver Safety Wall**, developed for environmental rationalization of vehicles for collective transport, Mussa & Graziano proposes a sanitizing solution for the air of the passenger compartment:
the **SANICLIMA W200**.

This solution takes advantage of the natural effect of photocatalysis, thanks to which a particular substance, the catalyst, for example WO3 , subjected to a light radiation, activates a strong oxidative process that leads to the transformation of harmful, organic and inorganic substances, into harmless compounds. Catalyst nanoparticles are applied to a support crossed by the airflow. When they are irradiated by special LEDs, they react with the moisture present giving rise to free radicals, very short life but very reactive, which attack and decompose harmful substances.

The entry of sanitized air, in addition to breaking down the bacterial charge in crowded environments typical of means for collective transport, **disinfects and eliminates odors**.



PRINCIPLE OF OPERATION: Photocatalysis is a natural phenomenon whereby an active substance called a photocatalyst present on the surface of the filter, through the action of LED light placed on the sides, converts light energy into electrons, which from the reaction with the water present in the humidity of the air that passes through it causes a decomposition of the organic and inorganic pollutants present in the airflow, thus reducing the bacterial load.

AUTOCLIMA

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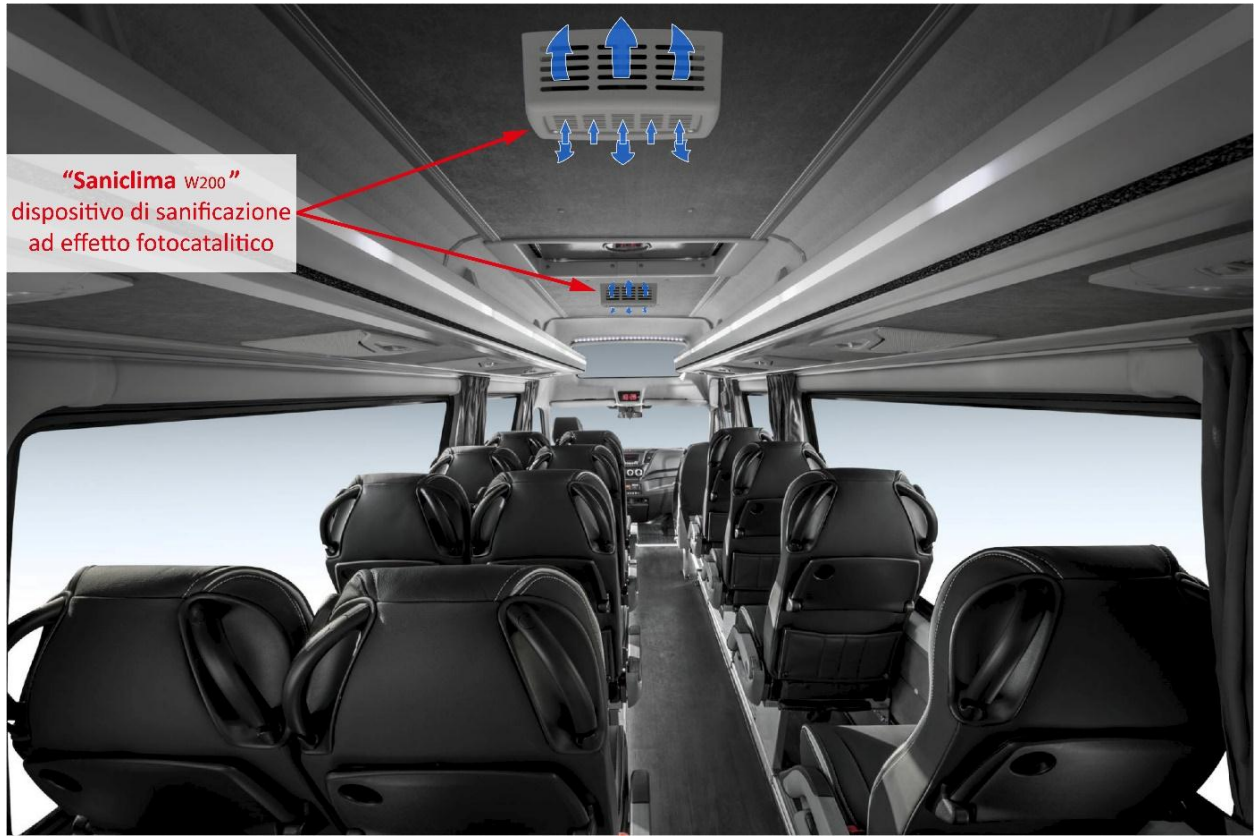
As this is a natural process, the sanitization with **AUTOCLIMA SANICLIMA W200** can be performed during the whole service of the vehicle and when it is parked.

SANICLIMA W200 guarantees to the occupants that the sanitization performed with the vehicle stopped is renewed during the whole shift.



AUTOCLIMA

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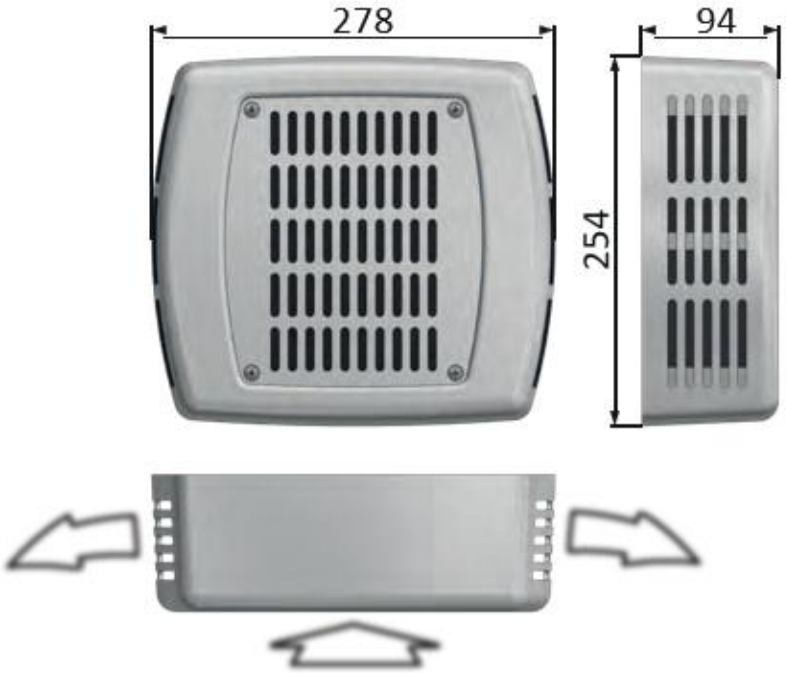
SANICLIMA W200

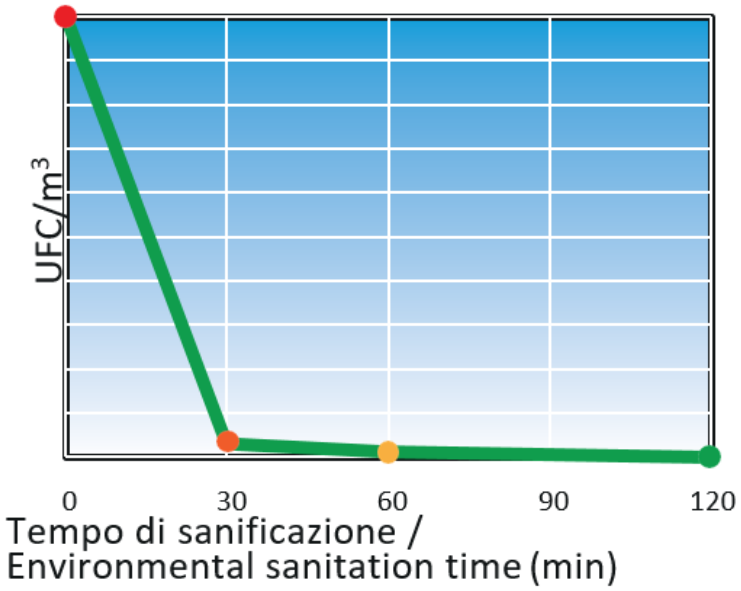
12 V- cod. 20270324

SANICLIMA W200

24 V- cod. 20270325

Dati tecnici	Technical data	
•Tensione di alimentazione	•Working voltage	**12 V cc - 24 V cc**
•Assorbimento elettrico	•Power consumption	**2,5 A @12 V - 1,2 A @24 V**
•Durata	•Service life	**30.000 h**
•Portata aria	•Air flow	**200 m³/h**
•Peso	•Weight	**2,6 kg**





AUTOCLIMA

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PURETi: LATEST GENERATION NANOTECHNOLOGY TO GUARANTEE **CLEANING AND HYGIENE** ON ALL VEHICLE SURFACES THROUGH PHOTOCATALYSIS

The action of deep cleaning and control of the prolification of harmful bacteria and particles, can be guaranteed on all surfaces of the vehicle. Another effective solution that our company proposes is the use of Pureti products, with which you can treat the floors, walls, interior glass, pavilion and all the textile surfaces of your vehicle, in order to make **self-cleaning** all the components subjected to UV light that, through the phenomenon of **photocatalysis**, make all the spaces sanitized, free of odours, free of bacteria and able to constantly release igenized and clean air.

How PURETi's PHOTOactive BIXIDE (TiO2) works:
When exposed to UVA radiation, PURETi's anatasio titanium dioxide absorbs and converts the UVA part of light energy into electrons and electron gaps. TiO2 reacts with water (air moisture) to create oxydrile radicals (expressed as OH-) and with oxygen to create superoxide anions (O2 -). Billions of these highly oxidizing species are created in billionths of a second and work to disrupt organic matter at the molecular level. Photocatalysts do not lose their properties over time, as they act only as process activators, do not bind to pollutants, remaining available for new cycles of photocatalysis.

For more FAQs visit our website: www.mussaegraziano.it

Cav. Vittorio Scipioni

AUNDE

pureti Sustainable Solutions...for a Cleaner World

nanoair SOLUTIONS

carrozzeria MUSSA & GRAZIANO s.r.l.

For more information please write to info@mussaegraziano.it
All technical documentation will soon be available on our website www.mussaegraziano.it

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