

HEALTHY BUS PROJECT

DRIVER SAFETY WALL
and INTERNAL SANITIZATION
SYSTEMS VIA PHOTOCATALYSIS



carrozzeria
**MUSSA &
GRAZIANO** s.r.l.



THE NEW SAFETY FOR COLLECTIVE TRANSPORT:

DRIVER SAFETY WALL

A VERSATILE PRODUCT THAT CAN BE MADE ON ANY VEHICLE





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

ALL IN ONE PRODUCT



Protection against
physical contact



Protection against
salivary secretions



Protection against the
risk of aggression



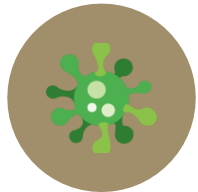
Protection against the
risk of intrusive
material



A great thermal
insulation system



A great sound
insulation system



An aid against air
contamination in
the driver cabin

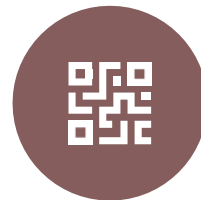


Ideal against driver
distraction

FOR PROFESSIONALS AND MORE



Ideal for shuttles dedicated to the collective transport of personnel



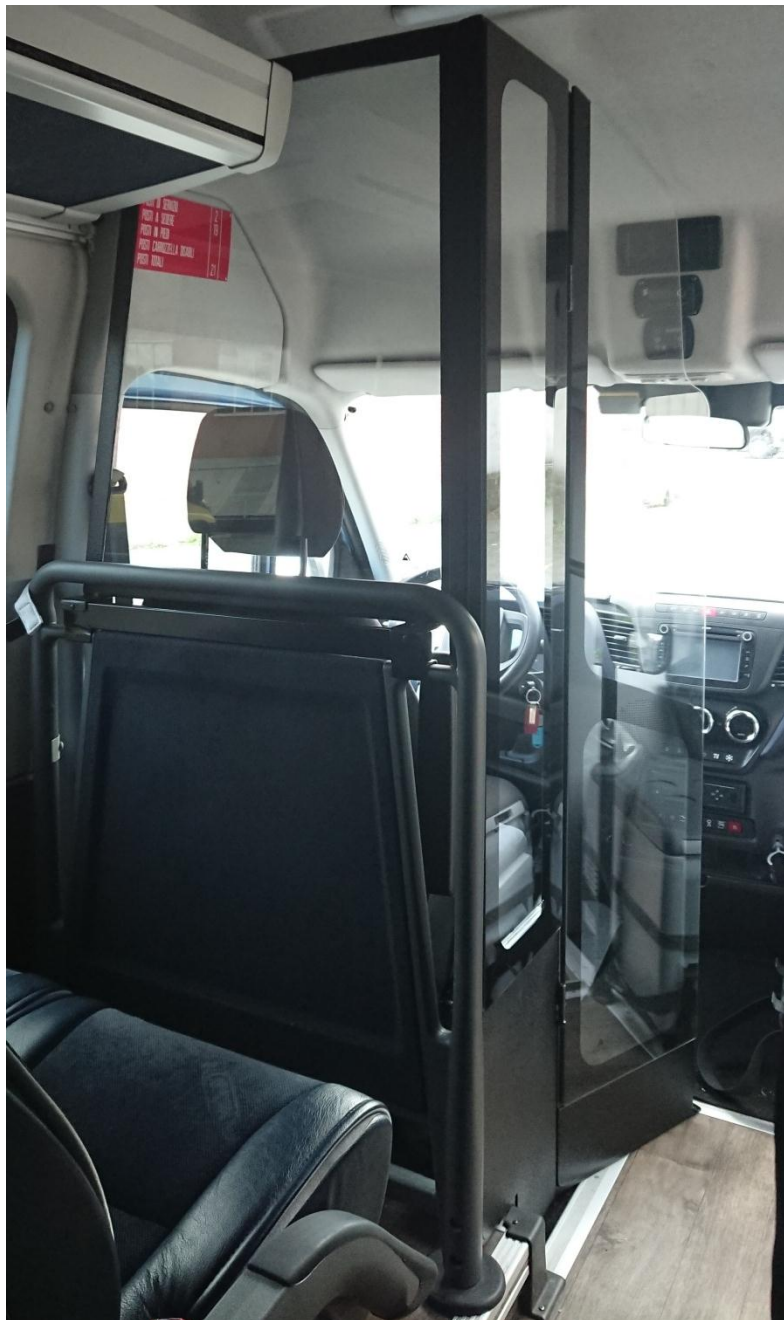
Ideal for driver protection and related corporate code of ethics 231



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



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



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.)

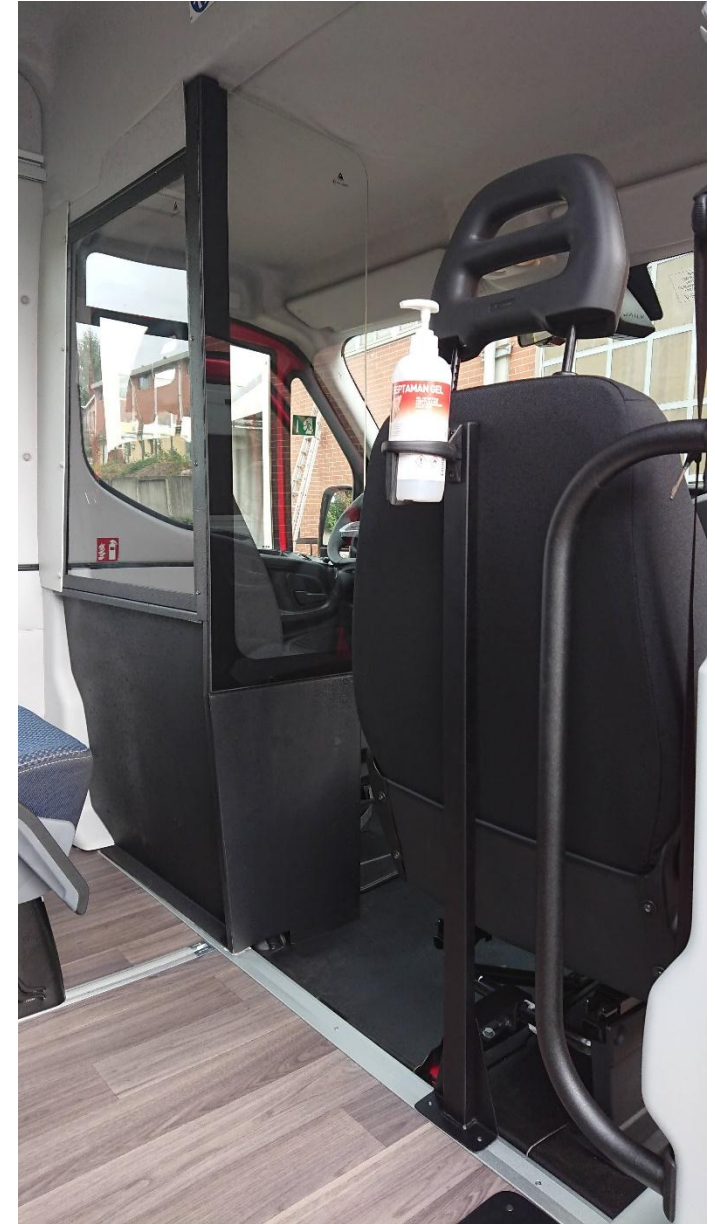
The wall is made of steel with a cataphore treatment complete with 6 mm thick approved glass. The same will be equipped with a coin drawer (integrated directly on the door glass) and sanitizing support.

An installation certificate will be released.

- HIGH LEVEL OF THERMAL AND ACOUSTIC INSULATION VETRATURE 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

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.





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

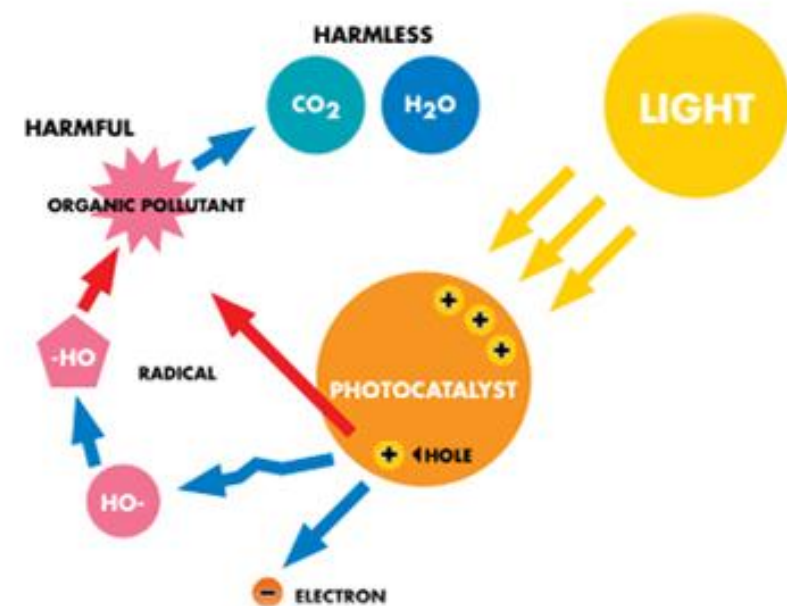
- Spaces and accessibility to places unchanged as originally
- Increased efficiency of the rear climate (less thermal dispersion in the cockpit)
- Increased rear heater efficiency (less thermal dispersion in the cockpit)

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 WO_3 , 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.

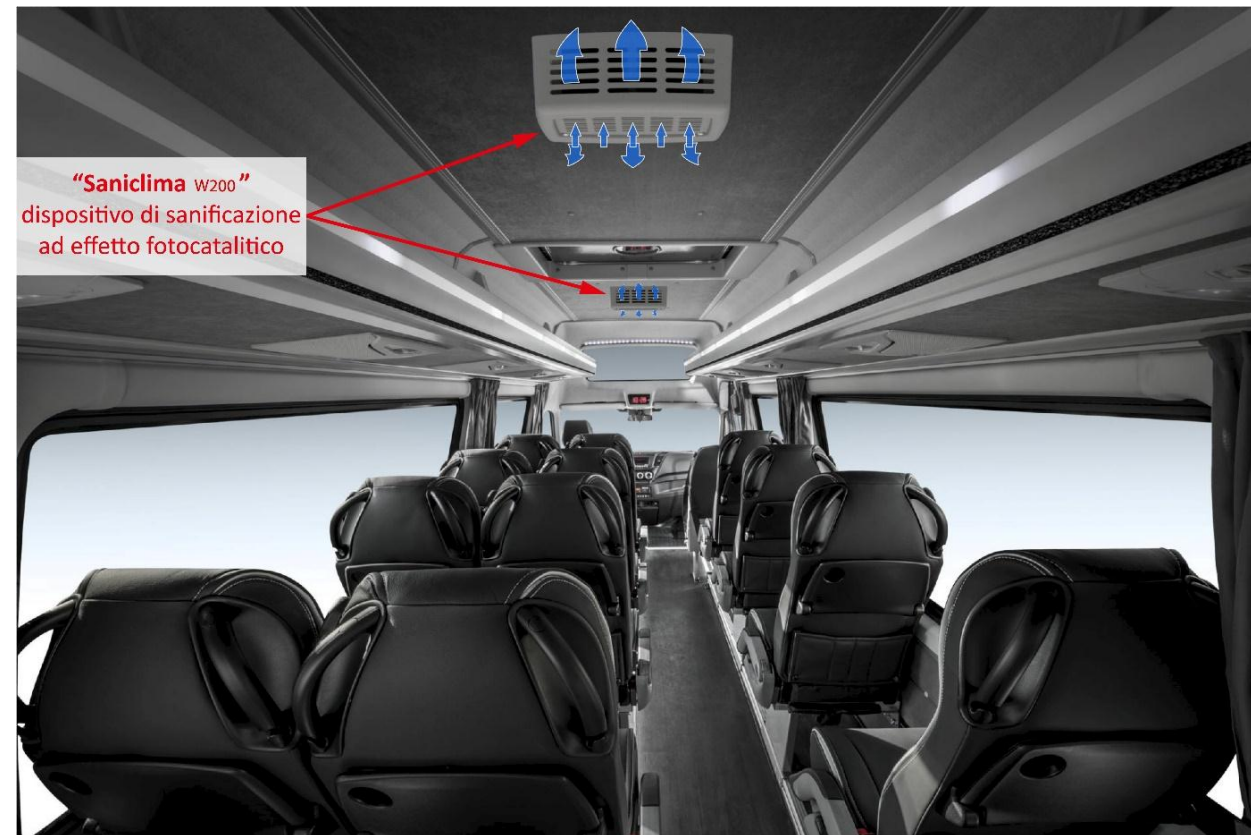
The entry of sanitized air, in addition to breaking down the bacterial charge in crowded environments typical of means for collective transport, **disinfects and eliminates odors**.



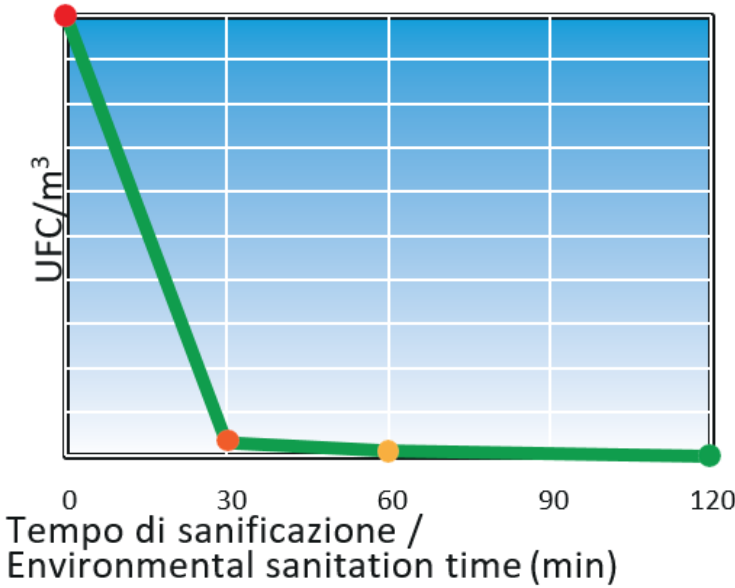
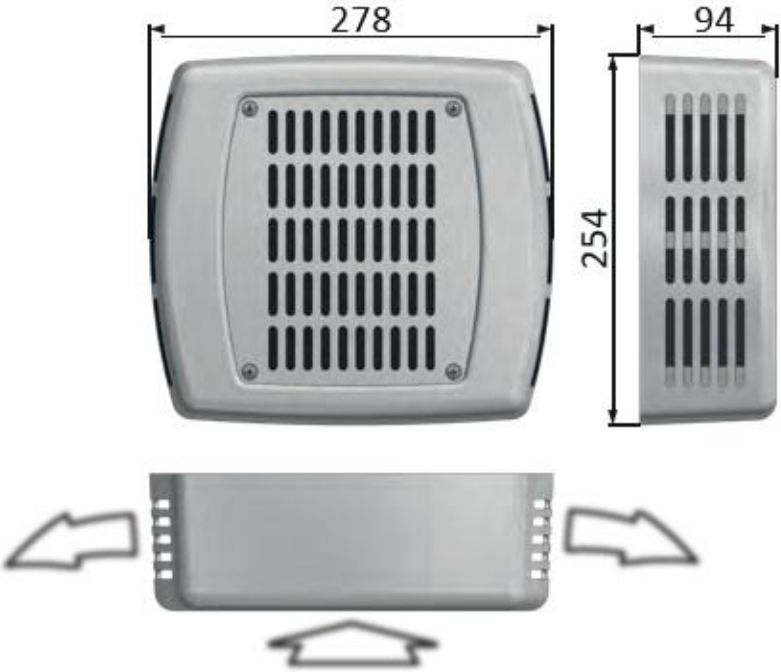
PRINCIPLE OF OPERATION: Photocatalysis is a natural phenomenon whereby an active substance called a photocatalyst present on the surface of the filter, through the action of LED light placed on the sides, converts light energy into electrons, which from the reaction with the water present in the humidity 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.

As this is a natural process, the sanitization with **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.



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



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



The action of deep cleaning and control of the proliferation 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 igienized 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

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



Carrozzeria MUSSA & GRAZIANO s.r.l.
Via G. Reiss Romoli, 122/10/P – 10148 Torino – Italy
Tel. +39 011 2267948 – +39 011 2267968 / Fax +39 011 2260040
www.mussaegraziano.it – Email: info@mussaegraziano.it

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