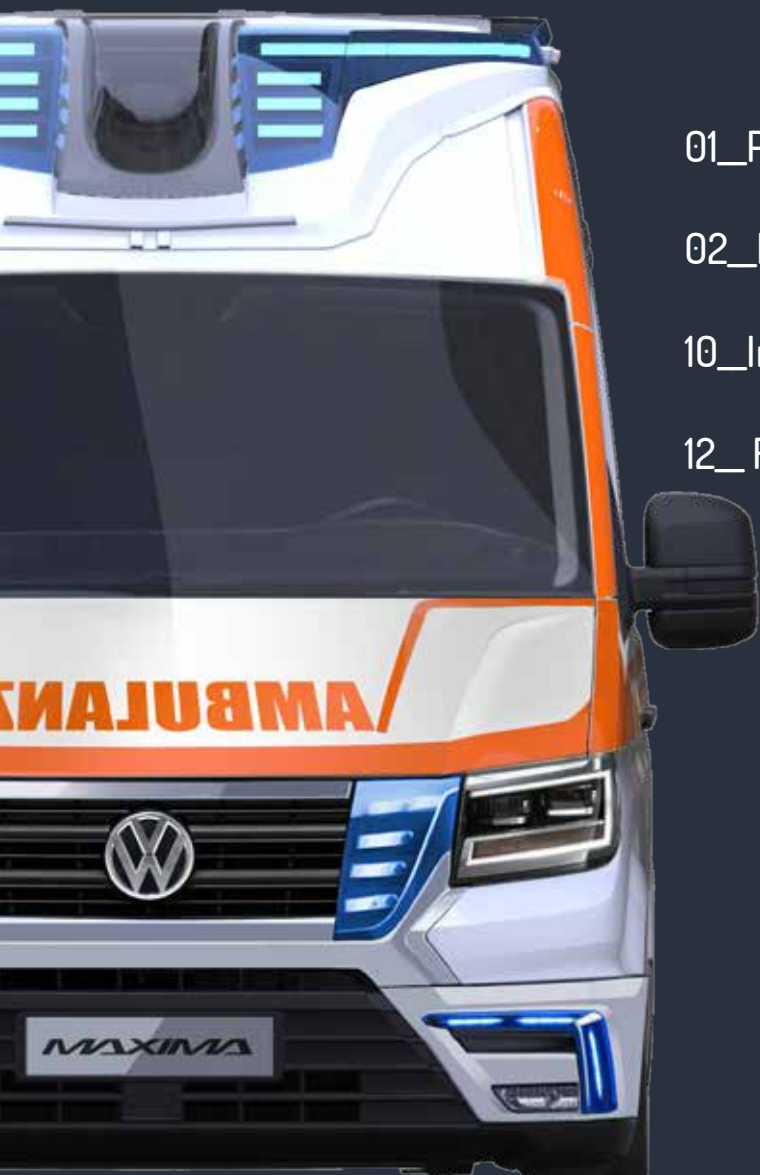




*Think
forward*

MAXIMA

When technology joins design



01_Presentation

02_External Design

10_Interior Design

12_ Furniture Design



MAXIMA the only ambulance that combines design with maximum operational functionality

After more than 2 years of development, Maxima was born. New point of reference in the rescue landscape.

Maxima combines maximum versatility, strength, technology and design in a single ambulance

What makes Maxima unique

- **Pure Health EVO**: the evolution of the Pure Health sanitation system, thanks to the new **antibacterial** and **virucidal** characteristics of the selected materials: **greater safety** for patients and operators
- Internal fairing in **ASA MIC** and details in **BAYDUR® 110** and **BAYDUR® 69**
- Lightening of the overall weight of the vehicle: **less consumption**
- Total reversibility of the set-up: **easier and faster maintenance**
- **Modularity** even after sales: possibility to replace or add internal modules even after purchase
- No invasive work on the bodywork: no cuts on the roof or frame, no welding
- Project entirely built according to **EN 1789: 2014 - A2** and parent company indications
- Upgrading of the air conditioning and ducting system insulated with antibacterial materials with hospital technology

MAXIMA







MAXIMA

New front design characterized by the original luminous “signature”, the three horizontal lines designed to improve the visibility of the lower front part, a very important area at intersections

MAXIMA

Lighting system

168 LEDs contribute to the brightness of the front and rear spoiler which are completely redesigned.

The external visual and sound signaling system is the lowest in its category, improving aerodynamics with consequent lower consumption





Full-height wardrobe

Ample space where they can find accommodation, the vacuum mattress or medium or large objects

"Soft close" wall units

The closing of the door is accompanied by pistons for a smooth and cushioned movement

Maxima console

A series of functions have been distributed in a single panel:

- Oxygen system
- Sanitary compartment control unit
- OB 500 fixed vacuum cleaner

Left locker

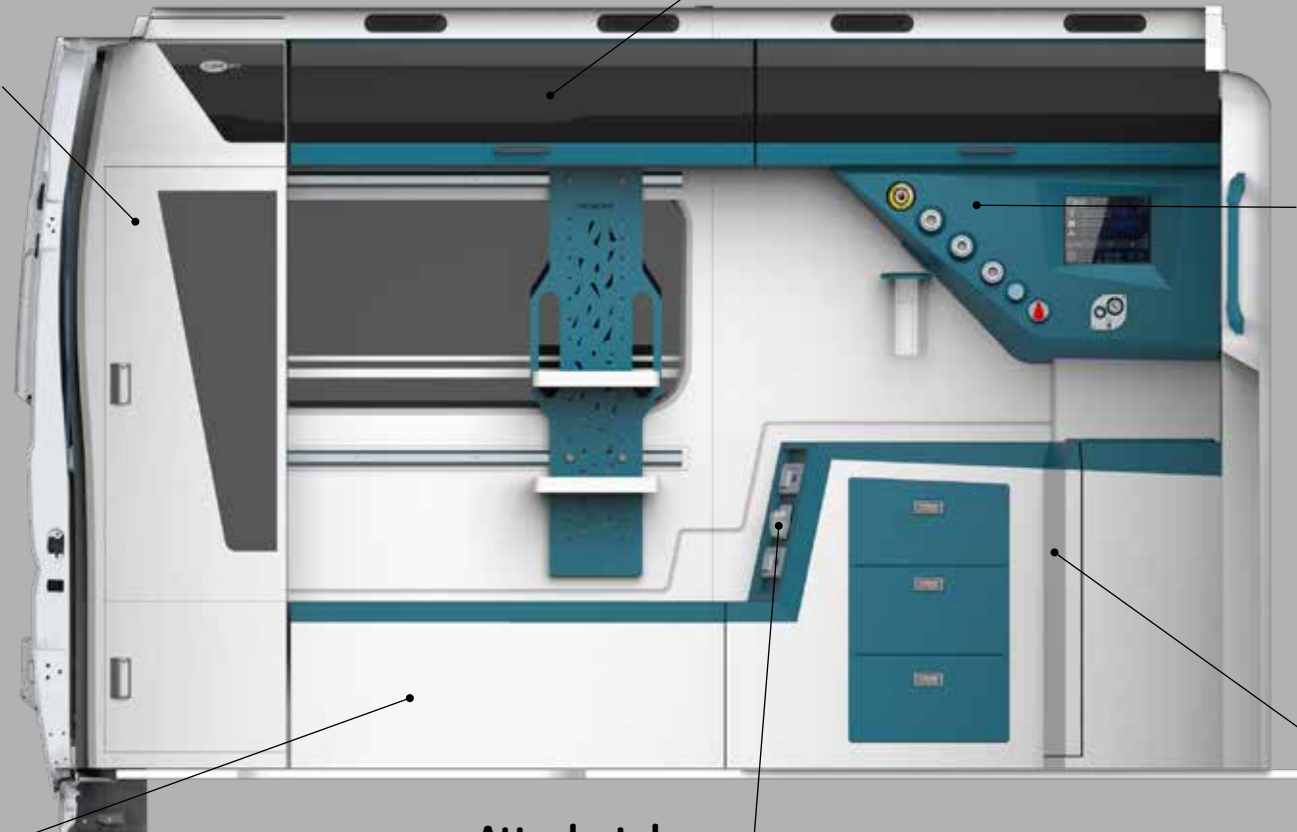
Convenient closed space that can hold objects of small or medium size

Attacks taken

Inclined panel with 12/220 V electrical sockets

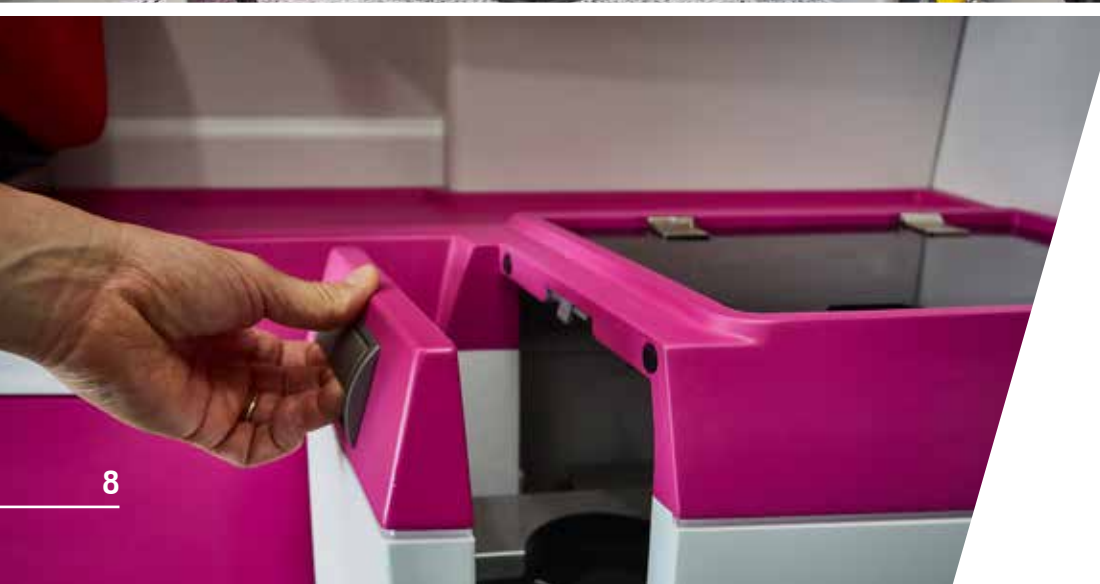
Corner cabinet

It can contain cylinders or pharmacy cabinet and can be motorized or manual





MAXIMA



Fiat Ducato



33q | 35q



140 CV | 160 CV | 180 CV



Diesel



Manual | Automatic



Front-wheel drive



Peugeot Boxer



33q | 35q



140 CV | 165 CV



Diesel



Manual



Front-wheel drive

Design in the DNA

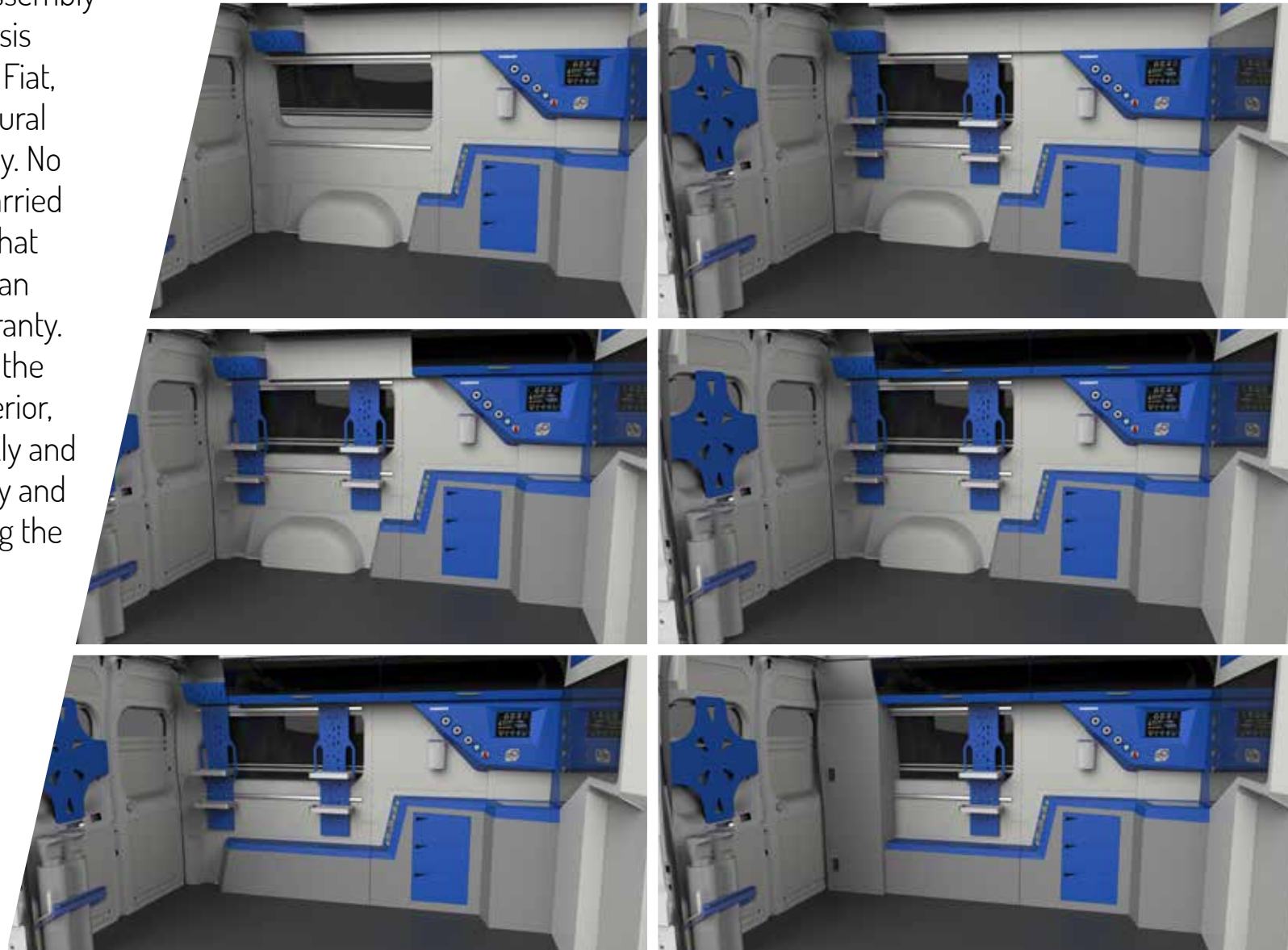
Every health facility in the right place in compliance with the EN 1789: 2014 - A2 standard



Customizable interiors

The method developed for the assembly of the equipment inside the chassis was studied in collaboration with Fiat, in full compliance with the structural indications of the parent company. No structural cutting or welding is carried out on the base chassis, actions that could affect the strength of the van and conflict with the vehicle warranty. This construction method allows the complete modification of the interior, also giving the possibility to quickly and effectively carry out both ordinary and extraordinary maintenance during the entire life of the ambulance.

Choose your configuration





Blue sky



Apple green



Florence spirit



Coral red



Bubble pink



London blue

Choose your style





Volkswagen Crafter



35q



140 CV | 177 CV



Diesel



Manual | Automatic | 8 rapporti



Front-wheel drive | 4motion



Man TGE



35q



140 CV | 177 CV



Diesel



Manual | Automatic | 8-speed



Front-wheel drive | 4motion

4x4

The Volkswagen Crafter offers the option of all-wheel drive for the roughest terrain





MAXIMA LITE



MAXIMA and MAXIMA LITE in comparison

ACCESSORIES	MAXIMA	MAXIMA LITE
SPOILER	MAXIMA SPOILER	MAXIMA LITE SPOILER
CHROMOTHERAPY	SI	NO
SKY LIGHTS	4	2
FURNITURE COLOR	BICOLORED	MONOCHROME
CONFIG. POSITION OF CYLINDERS	4	2
PHARMACY COMPARTMENT	YES	YES
FLOOR	RESIN + PURE HEALTH	PRE-ASSEMBLED
ANTIBACTERIAL TREATMENT	ASA MIC + PURE HEALTH	ASA MIC
SANITARY COMPARTMENT DISPLAY	10"	7"
HANDLE	ILLUMINATED	NOT ILLUMINATED
DOOR SILL	ILLUMINATED	NOT ILLUMINATED

Simplicity and functionality

Through the use of the plug & play assembly concept, the Maxima Lite set-up is the least invasive in its category.



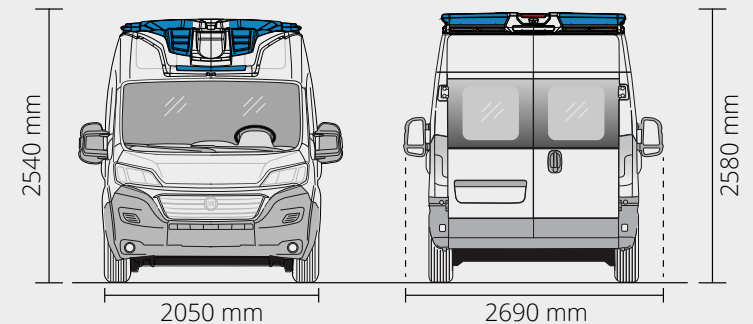
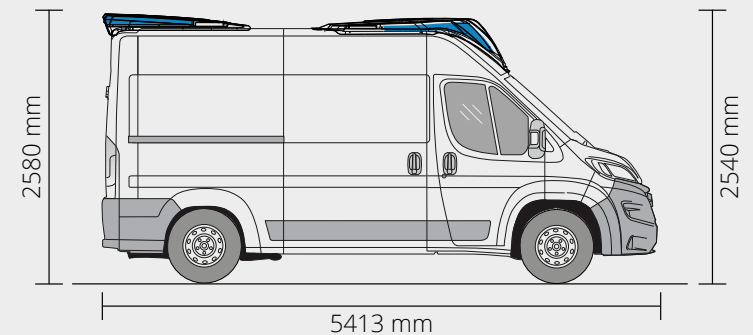
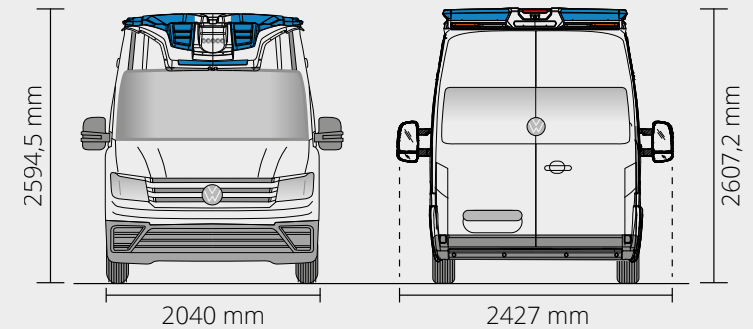
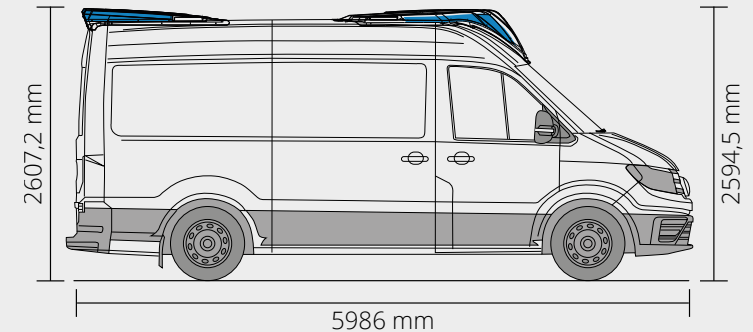


Touch Pro control unit

We are, always attentive to new technologies and the growing needs of its customers, has created this control unit which, in addition to integrating the commands of the on-board utilities, is equipped with features for managing the entire fleet. The system based on mosfet technology is devoid of traditional fuses and allows you to monitor and manage overload-short circuit situations, with automatic restoration of operation once the cause of the anomaly has been resolved. The user interface is made with materials resistant to common disinfectants and acids, it is completely smooth, free of cracks and surface screws, to allow perfect cleaning and offer maximum hygiene, it is also suitable for use with latex gloves or nitrile. Touch and Touch Pro allow you to manage flash sequences, adjust the intensity of the lights in the sanitary compartment and check maintenance deadlines.



◀ The graphical interface

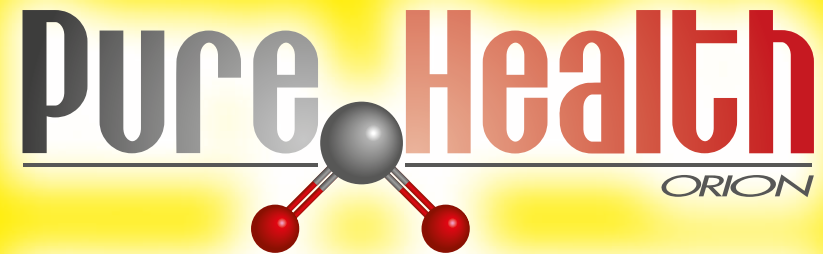


The antibacterial and virucidal ambulance: when light makes the difference

Pure Health EVO: the evolution of the exclusive sanitation system with photocatalysis.

Pure Health, thanks to the antibacterial and virucidal characteristics of the chosen materials.

Even more safety for patients and operators also thanks to the innovative air conditioning system made of stifferene: the same material used in hospital systems.



VIRUS AND BACTERIA SELF-SHIELDING SYSTEM

A barrier against Covid19

AMAZING RESULTS IN ONLY 30 MINUTES

For us, the safety of the healthcare worker and the patient has always been a priority. This is why we continue to invest in research into new technologies, construction processes, quality controls and certifications. Our research laboratory has also extended the tests to the SARS-CoV-2_COV2019 virus (more commonly called Covid19) and found that thanks to the photocatalysis process, the viral activity on PureHealth surfaces is reduced by 74.30% in just 30 minutes, and 97.43% in less than 2 hours.

4. ESITO DEI TEST ANTIBATTERICI
La Normata applicata per il Controllo dell'attività antibatterica è la seguente:
 $R = 10^{-6}$ - 10^{-7} - 10^{-8} - 10^{-9} - 10^{-10}

5. RISULTATI DEGLI ANALISI

Tavola 1 - Risultati di laboratorio

Campione	Metodo log TCID ₅₀	TCID ₅₀ / ml	TCID ₅₀ / cm ²	Test iniziale su	Materiali
Controllo	0.00	10 ⁰	10 ⁰	100%	100%
Regenera	0.75	10 ^{0.75}	10 ^{0.75}	100%	100%
PUREH-A	0.75	10 ^{0.75}	10 ^{0.75}	100%	100%
PUREH-B	0.75	10 ^{0.75}	10 ^{0.75}	100%	100%

Tavola 2 - Risultati sul campo

Campione	Tempo (min)	Metodo log TCID ₅₀	TCID ₅₀ / ml	TCID ₅₀ / cm ²	AR	A	% di riduzione rispetto a T1
PUREH-A	T1	0.75	10 ^{0.75}	10 ^{0.75}	100%	100%	0.0%
	T2	0.15	10 ^{0.15}	10 ^{0.15}	100%	100%	0.0%
PUREH-B	T1	0.75	10 ^{0.75}	10 ^{0.75}	100%	100%	0.0%
	T2	0.15	10 ^{0.15}	10 ^{0.15}	100%	100%	0.0%

Tavola 3 - Risultati sul campo

Campione	Tempo (min)	Metodo log TCID ₅₀	TCID ₅₀ / ml	TCID ₅₀ / cm ²	AR	A	% di riduzione rispetto a T1
PUREH-B	T1	0.75	10 ^{0.75}	10 ^{0.75}	100%	100%	0.0%
	T2	0.15	10 ^{0.15}	10 ^{0.15}	100%	100%	0.0%

5. CONCLUSIONI

Il risultato dei test è stato quello di dimostrare che il sistema PUREH-A e PUREH-B, grazie al processo di fotocatalisi, è in grado di ridurre l'attività virale del SARS-CoV-2_COV2019 virus (più comunemente chiamato Covid19) su superfici in stifferene. In particolare, il sistema PUREH-A e PUREH-B, grazie al processo di fotocatalisi, è in grado di ridurre l'attività virale del SARS-CoV-2_COV2019 virus (più comunemente chiamato Covid19) su superfici in stifferene. In particolare, il sistema PUREH-A e PUREH-B, grazie al processo di fotocatalisi, è in grado di ridurre l'attività virale del SARS-CoV-2_COV2019 virus (più comunemente chiamato Covid19) su superfici in stifferene.

The report page where the results are highlighted



MAXIMA





• NEW • NEW • NEW • NEW • NEW • NEW • NEW • NEW • NEW • NEW • NEW • NEW •

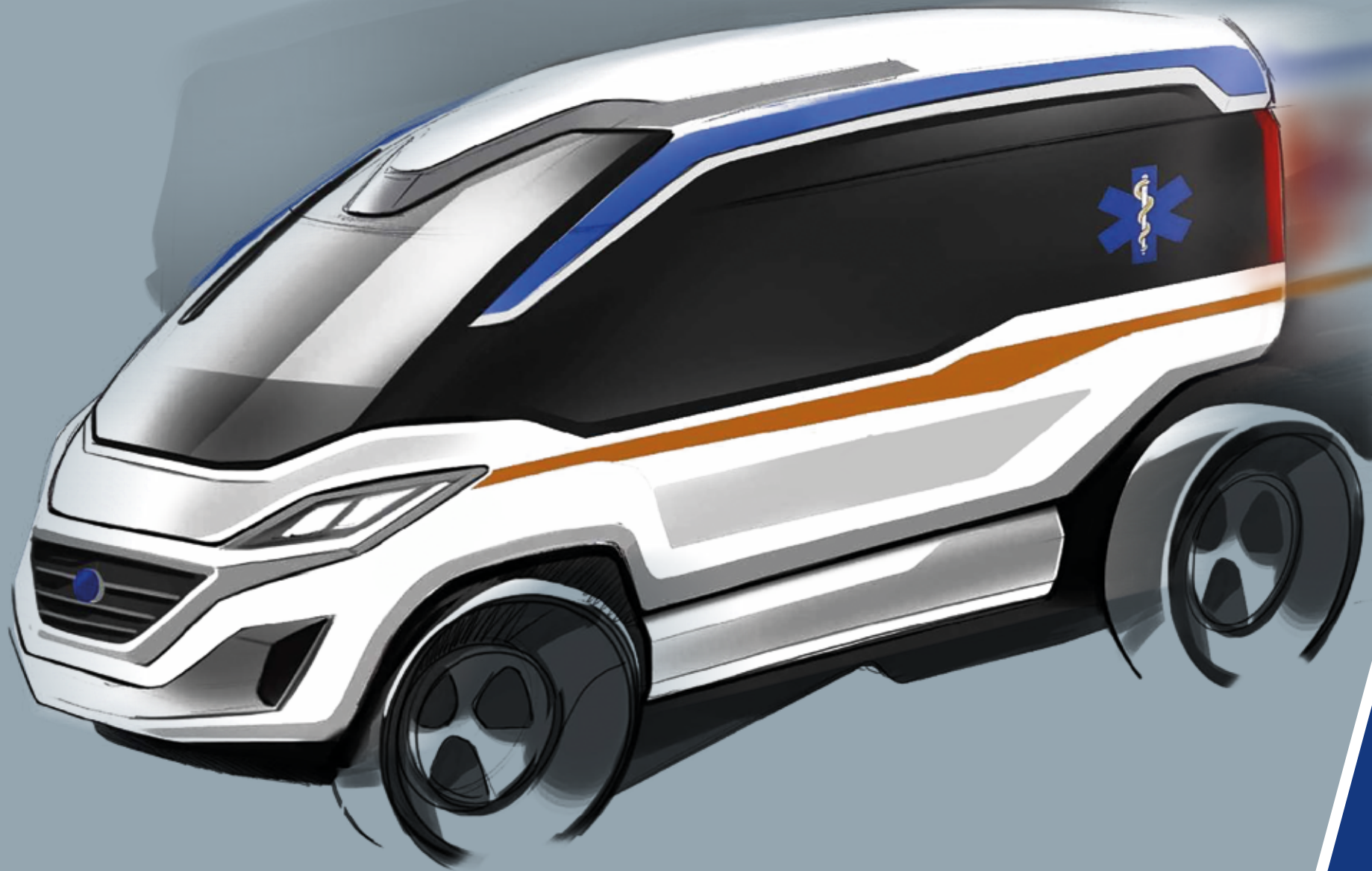


Accessories designed ad-hoc

Each accessory has been designed to improve usability without forgetting an attractive and ergonomic design.

- 1 - New ergonomic rack shelf**
- 2 - Ozonator completely integrated with the ceiling**
- 3 - Motorized cylinder holder module**
- 4 - Motorized sliding sedan module**
- 5 - Vertical pocket for spine board and spoon**





What is photocatalysis?

Photocatalysis is defined as “the acceleration of the speed of a photo-reaction due to the presence of a catalyst”. A catalyst is neither changed nor consumed by a chemical reaction. This definition includes

photosensitisation, a process in which a molecular species undergoes a photochemical alteration as a consequence of an initial absorption of light energy by another molecular species, entitled **photocatalyst**.

The chlorophyll in plants is a type of photocatalysis. With respect to photosynthesis, where chlorophyll captures sunlight to transform water and carbon dioxide into oxygen and glucose, photocatalysis (in the presence of a photocatalyst, light and water) generates a **strong oxidising agent** capable of transforming organic substances into carbon dioxide and water.



Titanium dioxide

Titanium dioxide, in the anatase form, is the most common photocatalyst and features the following advantages:

- **Low cost**
- **High photocatalytic efficiency**
- **Non-toxic**

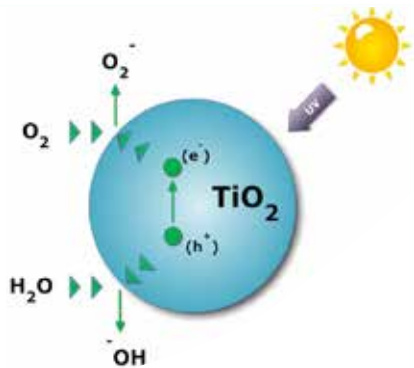
Titanium Dioxide, also known as **titania**, is the naturally occurring oxide of titanium, with the chemical formula TiO_2 . It is considered a safe and harmless substance for human health and is commonly used in the formulation of paint, printing inks, plastics, paper, synthetic fibres, rubber, capacitors, colours for painting and pastels, ceramics, electronic components, food and cosmetics. There are numerous studies published on the use of titanium dioxide as a photocatalyst for the decomposition of organic compounds: as a result of exposure to light, titanium dioxide produces **Reactive Oxygen Species (ROS)**, which react with organic substances, producing non-toxic inorganic substances.

Mechanism

When titanium dioxide absorbs Ultraviolet (UV) radiation coming from the sun or from an artificial light source (**fluorescent lamps**),

it generates pairs of electrons and holes (electron-hole pairs). The (positive) hole of the **titanium dioxide** breaks down water molecules into hydrogen and hydroxyl ions/radicals.

The (negative) electron reacts with the oxygen molecules to form superoxide ions. This cycle, which continues until the photocatalyst is illuminated, represents the general photocatalytic reaction mechanism of **titanium dioxide**.



PureHealth: a barrier against Covid19

SURPRISING RESULTS IN ONLY 30 MINUTES

For us, the safety of the healthcare worker and the patient has always been a priority. This is why we continue to invest in research into new technologies, construction processes, quality controls and certifications. Our research laboratory has also extended the tests to the SARS-CoV-2_COV2019 virus (more commonly called Covid19) and found that thanks to the photocatalysis process, the viral activity on PureHealth surfaces is reduced by 74.30% in just 30 minutes. and 97.43% in less than 2 hours.

Comparto	Temp. (°C)	Attività (log 10/100)	CO2 (ppm)	OH (ppm)	OH (ppm)	% di riduzione rispetto a 0h
02P01A	21	4.38	400	3.90 x 10 ²	4.38	74.30
02P01A	19	3.38	400	2.30 x 10 ²	4.38	97.43

The report page where the results are highlighted

Compound	Potential of Oxidation (volts)	Relative Oxidation Power (Cl ₂ = 1.0)
Hydroxyl radical	2.8	2.1
Sulphate radical	2.6	1.9
Ozone	2.1	1.5
Hydrogen peroxide	1.8	1.3
Permanganate	1.7	1.2
Chlorine dioxide	1.5	1.1
Chlorine	1.4	1.0
Oxygen	1.2	0.90
Bromine	1.1	0.80
Iodine	0.76	0.54

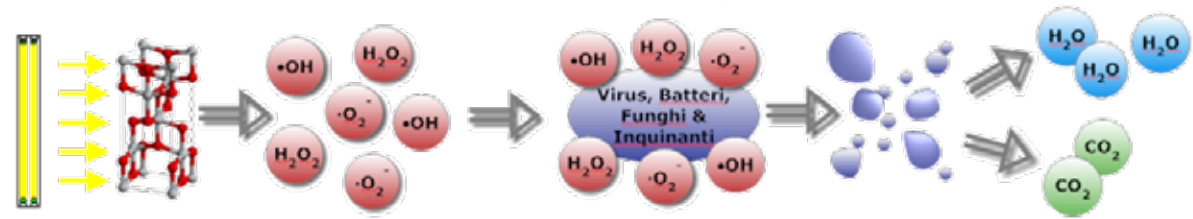
Source: U.S. Environmental Protection Agency
http://www.epa.gov/swerust1/pubs/tum_ch13.pdf

The new Pure-Health setup is:

- A truly independent cell inside the vehicle, offering rigid and strong protection to users in the event of an accident.
- Perfect passive protection, as it has no sharp corners.
- A unique tool that constantly reduces the growth of bacteria and viruses commonly present on surfaces, also active in the presence of people.

PURE-HEALTH EQUIPMENT: FOR 360° SAFETY

The new primary structure in nanostructured composite material, while maintaining the characteristics of the current modular set-ups, introduces a new safety factor linked to the health care of healthcare personnel and patients.



Photocatalytic oxidation: antibacterial and virucidal effect

The bactericidal and virucidal effect due to the photocatalytic action of the TiO₂ is due to the formation of Reactive Oxygen Species (ROS), such as O₂^{•-}, H₂O₂ e HO[•], generated by the TiO₂-light synergistic system. Most studies (Ireland et al, 1993; Cho et al, 2005) have always led to the same conclusion, namely that the hydroxyl radical HO[•] is the main species involved in the bactericidal and virucidal action of photocatalysis.

The hydroxyl radicals, being extremely short-lived (10⁻⁹ secs), must be generated near the membrane so that they are able to oxidise some components. Their extremely short lifespan and the fact that they are produced on a surface, making them harmless to people.

The most powerful advanced oxidation systems are based on the generation of hydroxyl radicals. The hydroxyl radical is an extremely powerful oxidising agent. Because of its strong oxidative capacity, photocatalytic oxidation can effectively sanitise, deodorise and purify air, water and various surfaces. Photocatalysis not only kills bacteria cells but decomposes them. Titanium dioxide has been proven to be more effective than any other antibacterial agent because the photocatalytic reaction takes place even when there are cells that cover the surface and the multiplication of bacteria is active. Furthermore, the endotoxin, resulting from the death of the cell, is decomposed by photocatalytic action. Since the Titanium dioxide does not degrade, it shows a long-term antibacterial and virucidal effect. Disinfection by titanium dioxide is generally 3 times more effective than that obtained with chlorine, and 1.5 times of ozone.

The new modular structure

Nanostructured photocatalytic surfaces

"Antibacterial ambulance" project was born following the meeting and merging of a research centre with a know-how on nanostructured materials, with a strong 10-year study and research.

The project was born from this cooperation for the development of innovative materials for the fitting out of new generation antibacterial ambulances.

The Pure-Health antibacterial modular structure, is realised through a new (patented) production process of the components made of nanostructured composite material. This made it possible to obtain a nanostructured photocatalytic surface. At the base of the new bactericidal and virucidal action system, there is the combined use of these structures with full-spectrum fluorescent light lamps.

"Maxima" rear and front spoiler



"Luxor" rear and front spoiler



"Maxima Lite" rear and front spoiler



DOMINO rear spoiler with straight / upside-down flashing lights and drops with flashing lights or front spoiler with light bar



DOMINO rear spoiler with inverted flashing lights and drops with front flashing lights



"Milano" rear spoiler and drops with front flashing lights







The Domino project, comes from an important study carried out with us in collaboration with the University of Florence. Since the first design phase, the goal was to offer a product with innovative safety features, ergonomics, design and flexibility.

Domino is better described as a system that is suitable for infinite solutions, rather than just as a single “construction prototype”.

In fact, this set-up consists of an integral shell covering the vehicles’ interiors and a series of furnishings chosen with the customer to meet any need.

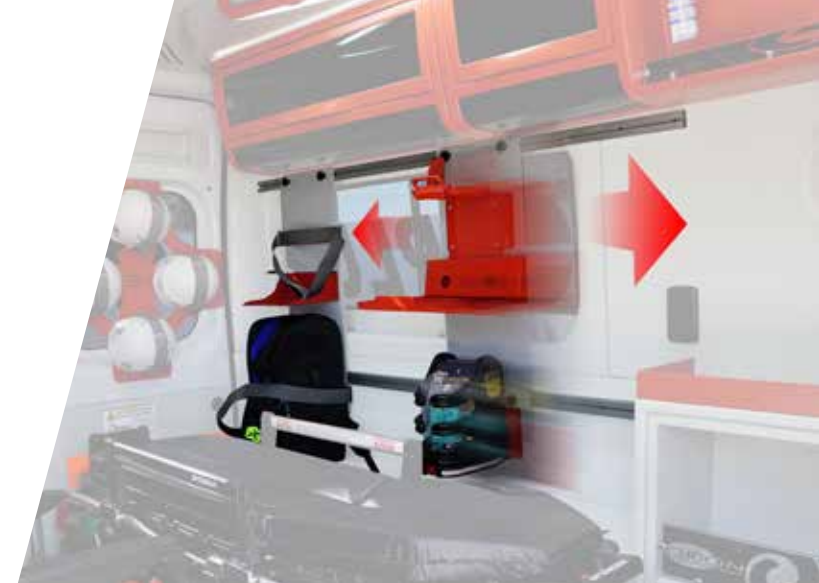
By modifying the combination of furnishings, we are able to create ergonomic solutions that are very different from one another and respond to the many requests received by sector operators.

All the shell parts and the furniture manufactured, are made of nautical fibreglass with variable thickness. The structural reinforcements are designed to offer maximum stability, the electric system “can bus mosfet” with LED lights offers a high reliability and ease of use.

Domino is available on all types of vehicles: Fiat, Citroen, Peugeot, Renault, Volkswagen, Mercedes, both for emergency and transport.

Domino can be equipped with the **“Pure Health”** sanitising system that allows continuous sanitisation of the vehicle also with patient and personnel on board: **an our exclusive** .

Our integrated **“Luxor” led spoiler**, or more classic solutions, such as bars or flashing lights, can be installed externally.



DOMINO+PLUS

Domino: not a simple Ambulance,
but your Ambulance!

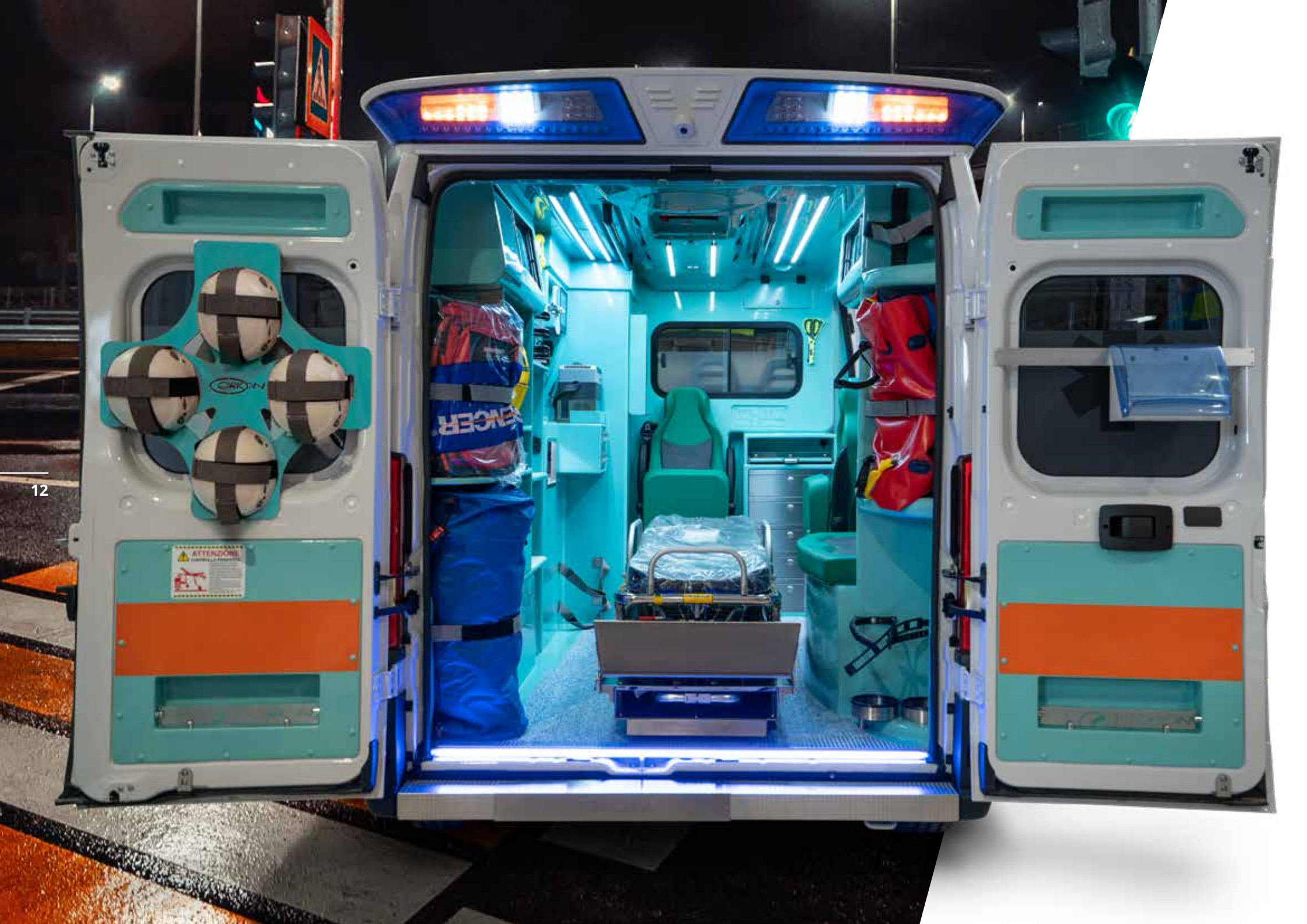












Fiat **Ducato**
Double-door







QUADRA

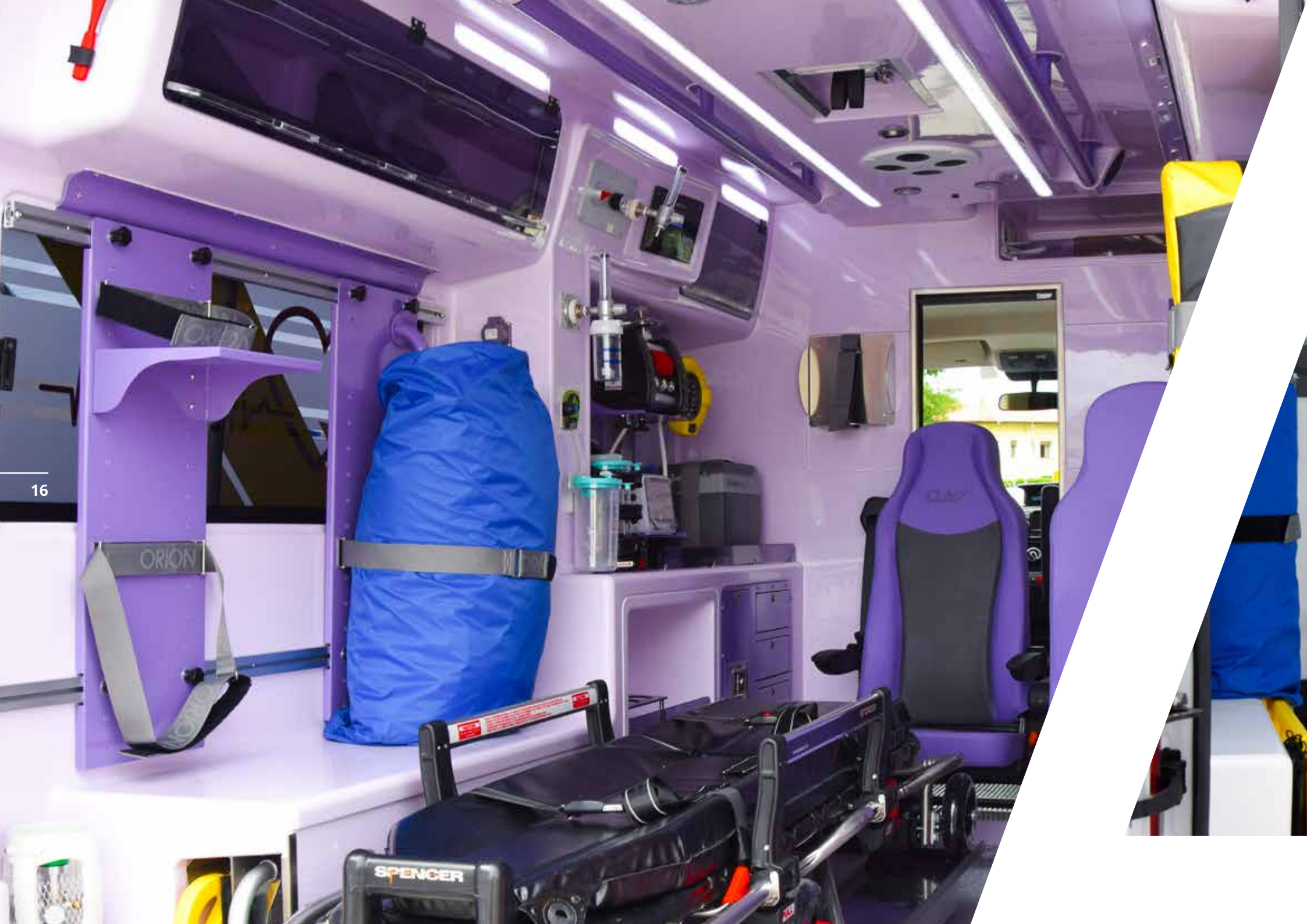
EVOLUTION

Essential design

Quadra System is the ideal solution for those looking for a **functional and essential set-up**.

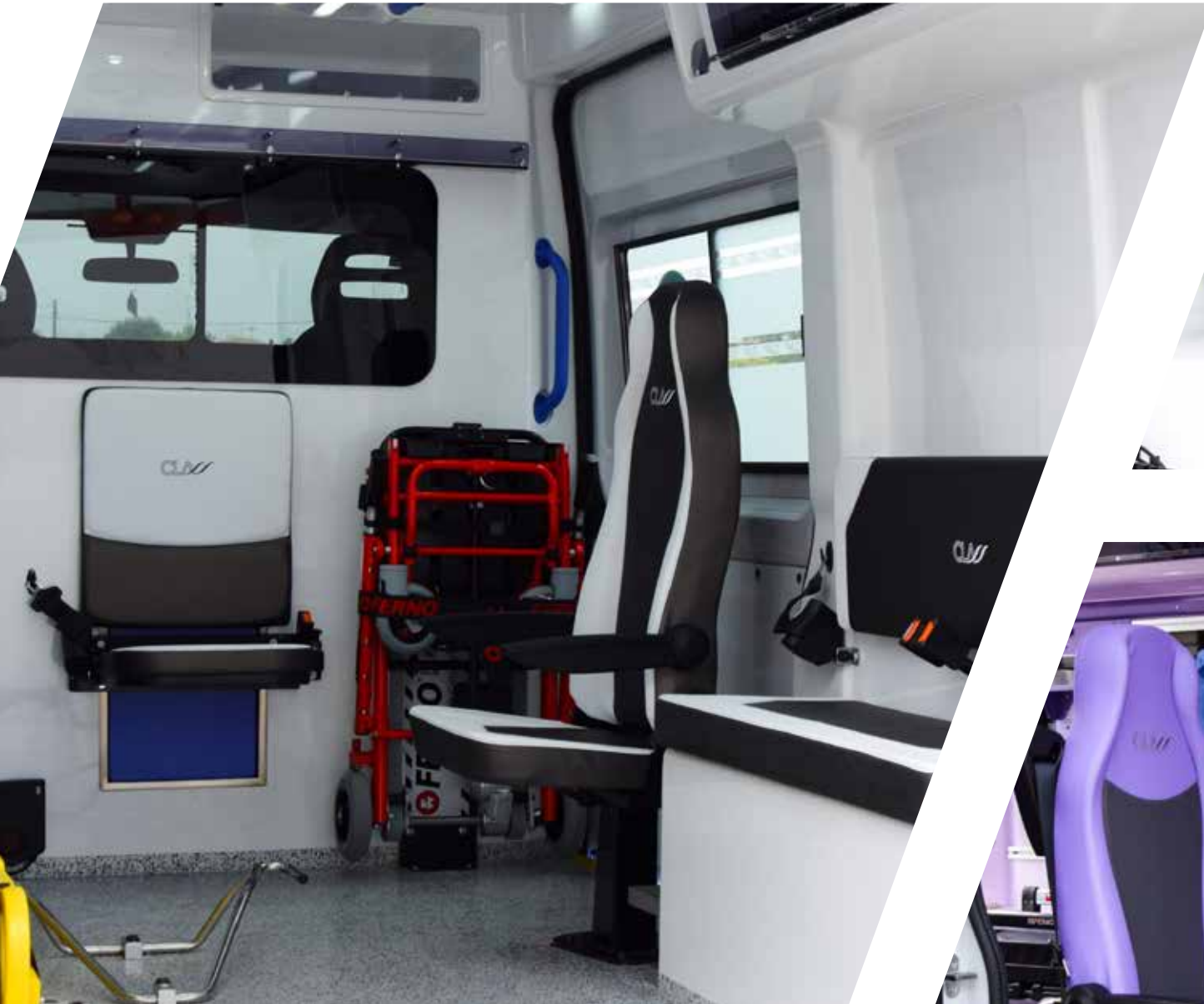
With only 4 fibreglass parts, Quadra integrates all the necessary furniture for stowage of equipment and first aid. The cladding components are made of nautical fibreglass with variable thickness. The structural reinforcements are designed to offer maximum stability and protection.

The standard configuration of Quadra is complete with the main emergency equipment and can be supplemented by numerous accessories such as: exclusive Luxor spoiler, oxygen tanks, communication port between the patient area and the cabin, energy system, additional cabinets, cushioned stretcher support or specific electro-medical devices for medical assistance on board. Quadra can be customised with a wide range of colours, without additional costs. For those who care to first-aiders' constant safety, Quadra is also available in Pure Health version.
Quadra: the ultimate compromise between ergonomics, quality and price.



Fiat Ducato

CLASS SET-UP





Volkswagen Crafter | Man TGE



Volkswagen Crafter | Man TGE





Ford Transit

Available with:

- HYBRID
- 4X2
- 4X4









Volkswagen **Transporter**





Volkswagen **Transporter**







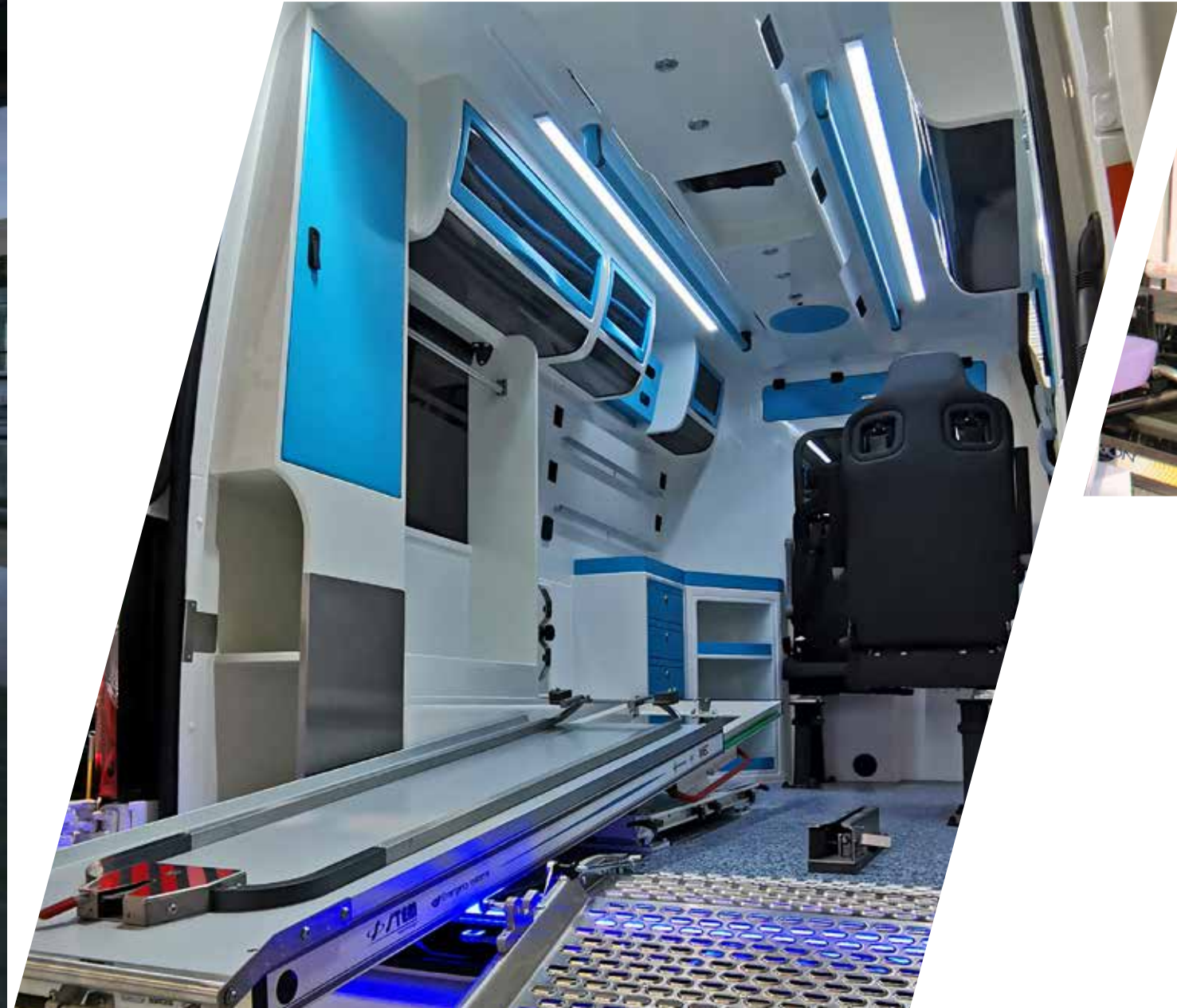


Volkswagen **Transporter**





Mercedes **Sprinter**

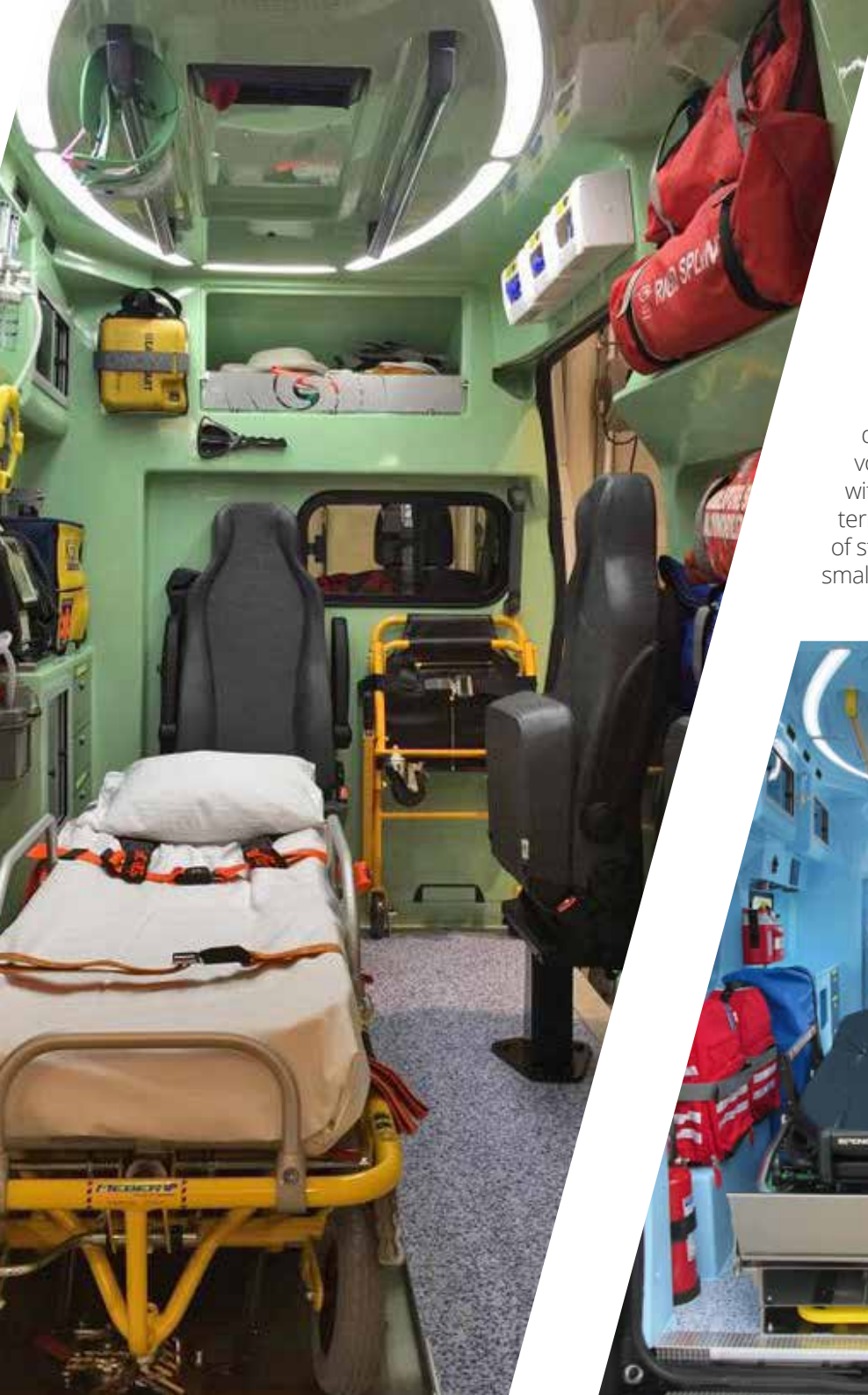




Renault Master







Renault Traffic Fiat Talento

Ambulance type A1 (rescue) on the new Traffic. The Renault van, built in collaboration with Fiat (known on the market as Fiat Talento), lends itself well to being transformed into a rescue ambulance. Thanks to its external dimensions and to the excellent internal volume, it allows maximum comfort without any renunciation, neither in terms of space to work, nor in terms of storage of equipment. Thanks to its small size, it is also suitable to reach



the most inaccessible places. There is ample space inside for operators and all the necessary equipment to perform rescue operations and journeys like CMR (Convention on the Contract for the International Carriage of Goods by Road): vacuum cleaner, electromedical devices, backpacks, oxygen tanks and portable oxygen tanks are conveniently located. The Domino set-up is obviously completely editable and customisable to be adapted to each client's different needs.





Fiat Doblò XL



In collaboration with Fiat. This is the ideal ambulance for those needing a small vehicle for medical transport. Thanks to a close study of the interior spaces, all the essential equipment find the right place.

A normal size stretcher is also included inside this Fiat Doblò, making it interchangeable with larger ambulance stretchers.

In full spirit, it is possible to completely personalise your vehicle. Low costs, both in terms of design and running your vehicle.

Quadra set up applied to Doblò comes in different colour combinations and with the patented **PURE HEALTH** sanitising systems

Doblò XL Ambulance:
the "little" one that feels "LARGE"!



Other vehicles

In order to satisfy all needs, the our set ups can be adapted to any type of vehicle







MCXX

M C X



The range of cars that can transform into emergency service cars is rather wide. The often contained interior spaces, the different configurations of the vehicles and the numerous equipment that must be easily accessible in every situation, make a specific design indispensable for each set-up. The latter combined with a care of an artisanal production make the emergency car, vehicles with unique set ups.

Vehicles for transport of blood and organs | Automediche





Promobility is the brand created entirely dedicated to the transport of people in wheelchairs. Officially presented in April 2018 at Exposanità in Bologna, Promobility immediately showed its great potential by forging important relationships with European partners and with the most important international car manufacturers. In fact, today Promobility is a qualified body builder of many car manufacturers having obtained important quality certifications. The continuous search for innovation and development in transport has led Promobility to constantly develop the entire range of vehicles starting from those with lowered trim, passing through the classic high roof, up to major consequences to new important solutions for collective transport with vehicles of size vehicles. Relations are managed directly by the Promobility team with the main international players, placing the end customer at the center of the project. The

transported person will not only find a means of transport, but a safe and professional environment with qualified and friendly people able to listen to their needs. A new production site has been specially created, new spaces entirely dedicated to mobility, research and development of the final product. The opening of new Show-Rooms near the production centers of special vehicles represents the union and collaboration with the parent company as well as the constant presence on the territory ready to respond to the needs of the customer as close as possible, proposing the philosophy of quality and excellence that has allowed us to become the most important manufacturer of special vehicles in Italy for years.

Transport of disabled people





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We are the official sponsor of Volpi Rosse Menarini Basket in wheelchair. The proximity to the Florentine club arises from the commonality of values of respect, social inclusion and the elimination of any architectural and social barrier aimed at preventing total independence of movement by people with disabilities.

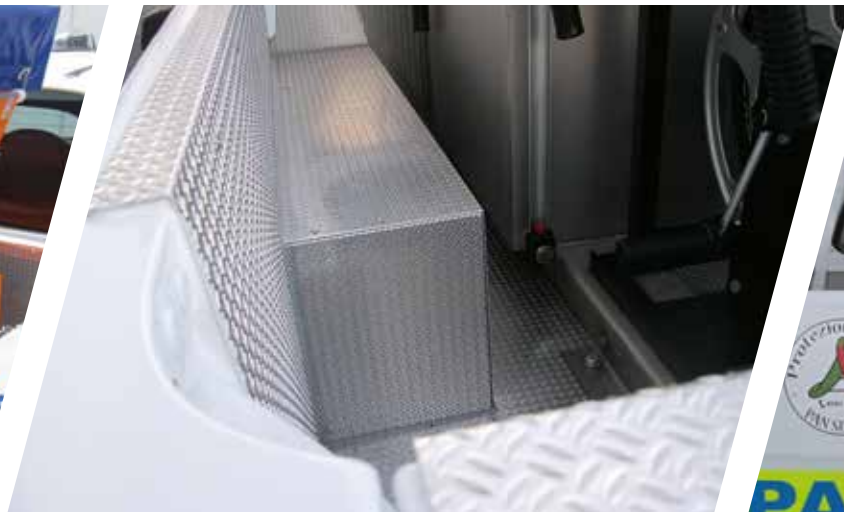




Civil Protection

We are not only limited to the development of rescue and emergency vehicles, but it also focuses on the design and construction of vehicles for Police Forces and Civil Protection. Particularly the needs of the latter are multiple to deal with all very different scenarios.

We are able to build many types of equipment through listening to the problems brought up by sector operators, the ability to establish synergies with other companies in this industry, and the willingness to respond to requests with innovative and highly reliable solutions.



Oxygen tanks compartment, designed for safety

The oxygen tank valves are subjected to a high working pressure. In the event of a collision with other vehicles, the very violent impact of the valves could cause irreparable damage and serious injuries.

With the exclusive cab tunnel, the chances of this happening are drastically reduced, because the oxygen tanks are located in the centre of the vehicle, away from the outer body of the ambulance.

The removable trolley guarantees greatest ease of oxygen tanks replacement, while the polyurethane cabinet of the cockpit offers a lot of space for the possible housing of communication devices and storage compartments.

Energy System

Ambulances equipped with this special device can remain parked with the engine on, even after removing the key. During all the emergency phases the alternator will guarantee the necessary energy to power the flashing lights, the lights, the air conditioner, the refrigerator (or other utilities), preserving the batteries on board. In the event that an unauthorised person attempts to move the vehicle, the Energy System will activate by switching off the engine and blocking the steering system.

Energy System, more security and more energy to the rescue.

Domino Eco Solar System

It is a photovoltaic energy system that supplies electricity, even in situations of low power, and is able to charge the service batteries and the installed electromedical devices.

The electronic controller installed on the vehicle prevents any current peaks that could damage the equipment and allows monitoring of the voltage and intensity of the energy supplied.



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