

## 1.0 BASE VEHICLE 20

Vehicle	Volkswagen	
Version	T6 4MOTION	
Seats in driver cabin	due (2)	
Engine capacity	2.0 diesel turbo (TDI)	
Power	150 HP	
Wheel drivre	4*4 – 4 wheel drive with manual gear	
Payload	32 tons	

Optional of the vehicle, in addition to the standard features (already included in the price of the supply)
Power battery and alternator
Secondary battery
Additional consolle 1 din on dashboard
Foglights
Single passenger seat in driver compartment (2 seats in total)
Electric interface for external use
High roof white colour with high double leaf rear doors alto
High sliding door
Sliding window on the first row
Electric pack II: electric windows, electric, foldable and heated external rear mirrors
Park pilot in the rear part with reverse gear acoustic alarm



### 2.0 MEDICAL COMPARTMENT- STRUCTURAL AND INSULATING CONVERSION

**REINFORCED BACKBONE STRUCTURE** made of metal for the anchorage of the furniture, the stretcher support, the seats and of all the holders of the electro-medical equipments. All metalwork elements are set to create a synergy with the original backbone of the vehicle in order to support all furniture and possible applications that are normally inside an ambulance and, at the same time, reinforce the medical compartment in case of a car crash.

PROTECTION FROM CORROSION: All metalwork element are treated with a double layer of corrosion- and rust-proof PPG enamel..

**INSULATION**: The medical compartment as well as the driver cabin has thermal and acoustic insulation, including doors and roof in driver compartment by means of adhesive thermo insulating and soundproof panels. The polyurethane open -cell panels are Class I fire-extinguishing. It is important to highlight that the efficiency of the thermal and acoustic insulation is not due to the thickness of material but to the characteristic of the material. The adhesive polyurethane open-cell panels Integra uses, grant best thermo-acoustic insulating performance. The panels are set in continuous and uniformly on all internal surfaces .





#### 3.0 – ELECTRIC SYSTEM – Standard

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#### ELECTRIC SYSTEM WITH CAN - BUS TECHNOLOGY (state of art):

A system designed specifically for ambulance use, provided with very sturdy electronic components resistant to the accelerations transmitted by a running vehicle, with ducts and connections that are not at all affected by vibrations.

The system is totally independent from the original system of the vehicle. it is endowed with a self-diagnosis software, nr.4 electronic power distributors and nr.02 control unit (independent) to run the ambulance service.

The system warns and indicates failures in ambulance. The system can detect and isolate the malfunction of a service. The system grants the functioning also in extreme conditions such as the cut -off of one or two cables or in case of short circuit

The system uses **MosFet** technology to control charges and protections. It reduces sensibly the number of fuses and totally eliminates the relays, thus granting "long life and maximum working reliability". The parts of the system have an independent protection control and are independent one another. The system automatically limits he absorption of some important parts if necessary and in specific use.

#### N.2 PANELS OF ELECTRIC SOCKETS:

The electric sockets are set in two different panels: one set in the higher and one in the lower part of the furniture next to the electro medical equipment. The panels are both supplied with a led light to indicate that the sockets are powered.

N.1 a circuit breaker with emergency button in case of overload and /or short

- N.1 Panel: n.2 electric sockets 12V (Jack type) + n.2 electric sockets 220V.
- N.1 Panel: n.2 electric sockets 12V (Jack type) + n.1 electric sockets 220V.
- N.1 electric socket (jack type) for the portable refrigerator (refrigerator not included as standard)

N.1 ADDITIONAL BATTERY: 105 Ah Trac Power AGM, type "maintenance free", with separated system for the ambulance services.

N.1 BATTERY CHARGER: The system is supplied with an electronic battery charger, voltage divider and automatic master switch to isolate the auxiliary battery. The voltage divider grants the charge of the auxiliary battery when the vehicle engine is on and detaches it from the principal battery when the vehicle is off, granting the charge of the vehicle battery to start up the engine. The battery charger allows to re-charge at the same time two batteries and works by inserting the external connector 220V. The battery charger as a special recognitions feature that allows to recharge any type of battery.



#### 3.1 - ELECTRIC SYSTEM – Standard

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**N.1 INVERTER** converting power from 12V. a 220V: pure sinusoidal wave 200-240 V., for specific ambulance use. In compliance with CE directive EMC 2004/108/CE including 2009/19/CE and Directive 2006/95/CE. It grants the perfect working also with sensible services. To protect the battery it switches to the city net as soon as available.

Very height peak power: 2000 watt, to power the devices that need high starting peak. The Inverter has two different protection mechanisms:

- Excess voltage protection: The inverter turns off when the value of the tension exceeds the disengagement value. It goes on again once the tensions fall again below the starting value
- **Under voltage protection:** the inverter turns off when the tensions goes below the disengagement value. It turns again on when the tension goes up over the starting value.
- Overheating protection: the inverter switch off when the temperature inside the device or the temperature of the cooler exceeds the disengagement value. it turns on again when the temperature goes back to the normal value.
- Overload protection: the inverter warns in case of malfunction (continuous red light) if the connection ha san overload or if ther is a circuit break. In this case the fuse ejects itself and must be manually reinserted
- Reverse polarity protection: it prevents the polarity inversion while the inverter is on.
- **N.1 EXTERNAL POWER SOCKET:** small type, flip-off cap, waterproof, complete with cable for connection to the 220V electric landline and safety system preventing the start of the ambulance engine. **(Thus preventing the vehicle to move if connector is inserted).**



N.1 AERIAL 1/4 wave for device of radio transmissions range VHF 140-175 mhz, range UHF 400-474 Mhz VHF UHF



### 4.0 MEDICAL GAS SYSTEMS- VENTILATION SISTEM – ASPIRATION SYSTEM – standard

**CENTRALISED OXYGEN SYSTEM,** for the oxygen therapy, **CERTIFIED EN ISO 1789 e EN ISO 7396-1**, complete with manometer and manual switch (empty/full bottle) specific for emergency vehicles, composed of:

- N.1 distribution bar with 2 oxygen socket, CONFORM TO NORM UNI 9507
- N.1 quick coupling CERTIFIED UNI 9507
- N.1 Open/close circuit valve.
- N.1 Manual switch empty/full bottle.
- **N.1** Manometer integrated in the cabinet, indicating the pressure of the system.
- **N.1** Clamp sliding on the rail where the flow-meter is anchored .
- N.1 Flow-meter with humidifier for oxygen-therapy
- N.2 Pressure reducers with manometers CONFORM TO NORM ISO 10524-1





#### 5.0 – FLOOR – Standard

**CONTAINING FLOOR** made of a single plate of highly compressed wood, sealed and water-repellent with a thickness of 20mm shaped ad-hoc to follow the vehicle outline. It is afterwards coated manually with a triple-layer casting of material made of epoxidic bi-component while the colours is realised through the application of coloured chips that make the floor anti-slippery even in case of wet surface. The floor can be cleaned, does not deform and can be repaired quickly in case of need

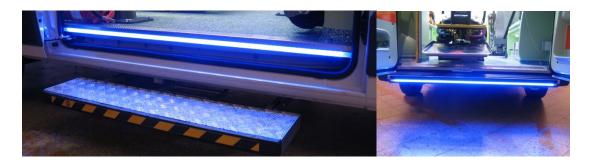
**EDGES AND SEALING OF THE OUTLINE**: also the perimetral edges of the floor, up to **40 mm, is coated in the same way of the floor with epoxidic bi-component material**. All the perimeter is sealed in the jointing points and also between the lateral walls and the furniture in order to ease the cleaning operation and avoid leakage and water-logging. The floor can be cleaned with a water pump. Our manufacturing system prevents the creation, over the time, of fissures and cracks caused by the vibrations and the movements of the structure

**SAFETY AND PROTECTION:** to make the access to the medical compartment safer, all parts subject to a quick wear-out (side and rear access to the ambulance), are covered with **an anti-slip and anti-scratch aluminium chequer plate.** 

The rear bumper is also covered with the same aluminium chequer plate



**ILLUMINATION OF THE AMBULANCE ACCESSES:** application of the aluminum profile with integrated blue led light under the rear bumper and on the edge of the lateral floor. The lights switch on and off with the opening and closing of the rear doors. (The electric step is not installed).



### Qualifying note:

The containing floor with a raised edge of 40mm, allows to wash the floor event with a water pump, without risk of dangerous infiltration. The illumination of the lateral and rear access, not only offers a better visibility during the stepping in and out of the ambulance but also amplifies the emergency signaling while the ambulance is stationary.



#### 6.0 - LINING OF THE MEDICAL COMPARTMENT - STANDARD

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#### Qualifying notes of the internal fitting out:

During steps that proceed the assembly of the furniture, the internal walls of the medical compartment are completely covered with panels with the specific shape of the vehicle, made of composite material, resistant to crashes and solicitations, a low porosity material, self extinguishing, resistance to weariness and corrosion, recyclable, easy to disinfect and odorless. The material is also not affected by any type of disinfectant and beach. The panels are easy to remove with parts that can be easily replaced in case of maintenance or repair. The panels assembly do not preset any empty space. Each junction is sealed with non-toxic seal (suitable also for food transportation) of the same color of the panels. The peculiar molding technique, grants constant thickness on oll the surface of the panel, including corners. The covering material has also an high degree of safety due to its feature of flexibility that do not allow the material to splinter.





7.0 – CENTRL CEILING PANEL and under-roof fitting out with air-conditioning system and illumination system - standard

**N.1 CENTRAL MULTIFUNCTION CEILING PANEL** made in RTM composite material, covers completely the ceiling. In the panel there is the integrated illumination system, with cutting edge LED technology and is supplied with the following:



N. 1 AUTOMATIC AIR CONDITIONING SYSTEM with digital setting of the temperature, including an heating/cooling evaporator independent from the original system of the vehicle. It ensures inside the medical compartment the ideal micro-climate for the comfort of patients and operators.

The diffusion of the air is done through a double line of canalisation integrated in the ceiling panel (12 air diffusion points to grant an uniform diffusion of the micro-climate, in conformity to Norm EN1789+A2 2014): The output points spread the air in the medical compartment in a uniform way without creating vortex or annoying fluxes.

The capacity of the system can maintain the set temperature in the medical compartment independently from the external climatic conditions. Digital panel in the medical compartment with display to visualize the set temperature.

**VENTILATION SYSTEM:** to intake and extractions the air. Turn on/off and speed adjustable directly for the control panel of the sanitary compartment.

The ventilation system for the air circulation is made by a intake/extractions group integrated in the ceiling panel and protected by a carter with grid. The electric engine has 3-speeds for both intake and extractions of the air. Grid with automatic flaps that open/close automatically. At maximum speed the air exchange is **40 times/hour**, The product is certified according to Directive 2006/42/CE and 2014/30/EU.

**N.2** big lighting stripes that run longitudinally along the whole patient area. The lights are set in order to provide light without shadowed areas. **The led technology provide an optimal diffusion of the light** on all the medical compartment and particularly on the patient treatment area, as **required by the Nom UNI EN 1789**.

**N.4 WHITE SPOT LIGHT**, with adjustable direction, LED technology, set on the 4 corners of the ceiling panel.

N.2 OVERHEAD HANDLES, of big dimension, set on the left and right side of the ceiling panel and covered in anti-slippery rubber.

N.2 I.V. HOLDERS, foldable, set inside a compartment of the ceiling panel closed by a sliding shutter.



#### 8.0 – FURNITURE LEFT SIDE - standard

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**FITTING OUT AND FURNITURE** of the left side, realised through a modular structure with pre-formed furniture totally **made composite material RTM with rounded edges**. The material is highly resistant, extremely light and free from corrosion without necessity of protective treatment even in environments particularly aggressive from a chemic point of view. Low porosity material, self-extinguishing, non hygroscopic, recyclable, cleanable and odourless. Highly resistant to crack and cut.

It is composed as follows

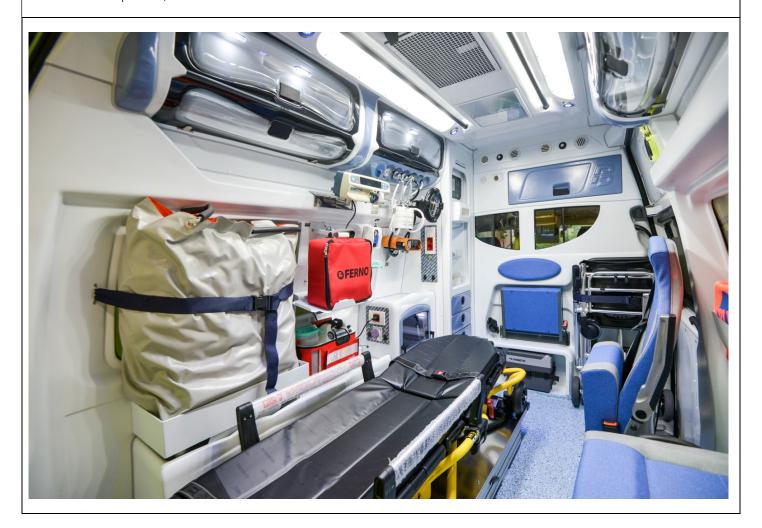
- N.1 PILLAR furniture, next to the divider wall. The upper part has 2 shelves in lexan with raised edge to store various stuff. The lower part has 4 drawers with steel rails, lock and anti-fall system (one drawer of big dimensions). The top part of the furniture has n. 1 built-in control unit panel for the activation of the services in the medical compartment with electronic function, easy to reach from any position and particularly from the doctor'seat. Display with high definiation, LCD matrix, backlighted buttons dividend into functional areas for easy spot of the services.
- n.3 Glove Boxes.
- n.1 electric panel, with 12V and 220V sockets.
- **N.1 FURNITURE**, next to the pillar one. The furniture has a working top with raised edge and n. 1 oxygen bottle compartment with an openable transparent window to check and gauges and adjust the reducer. The compartment can, in a specific metal cradle, store up to 2 oxygen bottle of 7 lt . the replacement of the oxygen bottle is done from the inside do the medical compartment opening the door of the furniture by means of two handles .





#### 8.1 – FURNITURE LEFT SIDE - standard

- N.1 FURNITURE long and low stretching on the wheelarch, with a full length top to be used as basment for the housing of bags or medical devices, The furniture has in the lower part a on open compartment to store other stuff di un vano a giorno sottostante dotato di fascia di contenimento o rete elastica per riporre presidi sanitari. At the top in the rear side there is
- n.1 Metallic base for the storage of a vacuum mattres which is hold in place by means of a belt with quick release buckle. The vacuum mattress in this way does not hindrance the spaces in the medical compartment and is in an easy position to be taken and stored.
- **N.2 OVERHEAD HANGING FURNITURE** are set in the upper part of the wall, one next to the other, with transparent doors in metacrilate that allow to easily spot the material inside. They are illuminated by a double led and with a built-in handle. The doors have a gas sprig to help the closing and opening. In the lower part of the right cabinet the oxygen bar is integrated. See description in the paragraph of the medical gas.
- N.1 METAL RACK painted, to fix the holder of the medical devices is set on the srut of the rear left window.





#### 9.0 – FUNITURE RIGHT WALL - standard

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**FITTING OUT AND FURNITURE** of the left side, realised through a modular structure with pre-formed furniture totally **made composite material RTM with rounded edges**. The material is highly resistant, extremely light and free from corrosion without necessity of protective treatment even in environments particularly aggressive from a chemic point of view. Low porosity material, self-extinguishing, non hygroscopic, recyclable, cleanable and odourless. Highly resistant to crack and cut. Composed as follows:

**N.1 OVERHEAD HANGING FURNITURE** is set in the upper part of the right wall. Supplied with transparent doors in metacrilate that allow to easily spot the material inside. It is illuminated by a double led and with a built-in handle. The doors have a gas sprig to help the closing and opening.

**N.1 STORAGE for splints** obtained in the lateral right wall, in the niche of the window a metal band is set to create the storage space. Useful to store splints or other material.

**N.1 NEW SEAT CERTIFIED IN CLASS M1** set front facing on the right side of the main stretcher. It is a seat for specific use in AMBULANCE destined to nurses or patience in conformity to the Norm **UNI EN 1789.** The seat can rotate and has a tip-up seat, an adjustable backrest and armrest, with integrated headrest. The best is integrated. The seat is upholstered with a thermoplastic material with smooth surface easy to clean and disinfect.

**N.1 BENCH with double emergency seat** for **two (2) persons,** 2 handles, padded cushions upholstered with fake leather. The cushions can easily be removed to be cleaned and disinfected. Two backrest are also provided. The two seating places can be lift separately to give access to the compartment below where it is possible to store other materials.

N. 1 FIRE EXTIGUISHER KG. 4 set on the rear corner.





#### 10 - DIVIDER WALL – COVERS AND FURNTURE- standard

**THE DIVIDER WALL**, separating the driver cabin from the medical compartment is coated with pre-formed panels and furniture totally **made of composite material RTM with rounded edges**. The material is highly resistant, extremely light and free from corrosion without necessity of protective treatment even in environments particularly aggressive from a chemic point of view.

The coating is set both inside the driver cabin and in the medical compartment. It is designed to make the best of the available spaces in medical compartment and get the maximum comfort for the driver. Between the coating panel a insulating material is set in order to improve the acoustic comfort.

N.2 WINDOWS with sliding doors, safety glass, with handles to open and close from both sides (driver cabin and medical cabin).

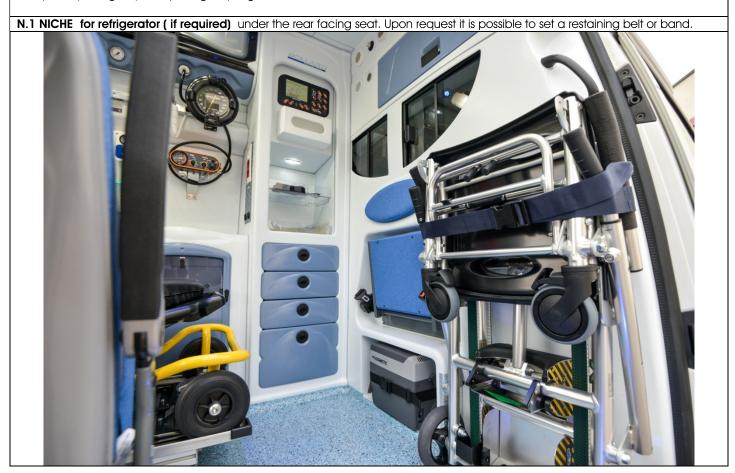
**N.1 CENTRAL NICHE** apt to contain the tip-up doctor seat (rear facing. The sitting place is also provided with a backrrest and an abdominal safety belt.

N.1 SIDE NICHE next to the sliding door to house a sedan chair in its indent in order to reduce the hindrance to the operators.

N.1 HANDLE to ease the stepping up of the people. Covered in rubber.

N.1 BUTTON to switch on the internal lighting system from outside

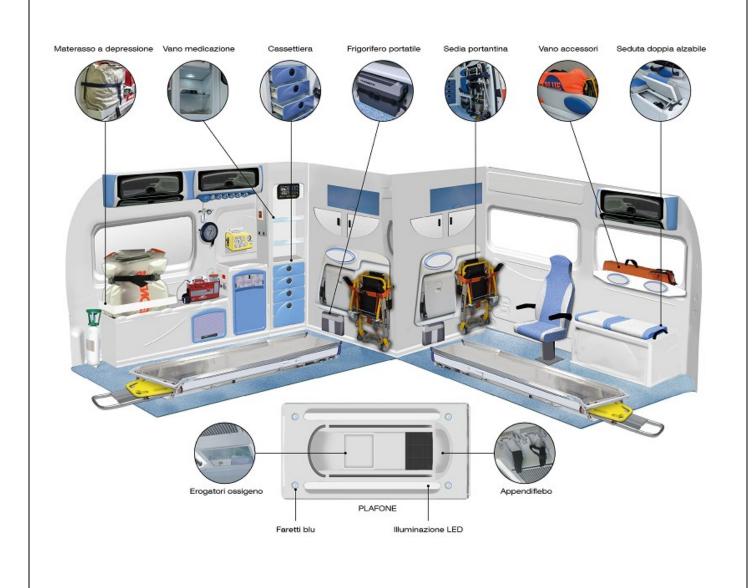
**N.1 CAPUCINE** of big dimension. It stretches under roof over the driver cabin. Illuminated by led lights and closed with a door with compass opening helped by two gas springs. Built-in handle.





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## RENDERING OF THE CONFIGURATION





#### 11 STRETCHER SUPPORT AND MAIN STRETCHER - Standard

N.1 FIX STRETCHER SUPPORT to fix the main autoloading standard. Mod. TOP-2 F, made with Bosch aluminium profiles and a stainless steel 15/10 tray. The support has N. 2 compartments underneath that allows the storing of a spinal board AND a scoop stretcher. The stretcher support is entirely designed and manufactured by INTEGRA and is composed as follows; folding ramp in stainless steel 20/10 servo-assisted with hydraulic piston to ease the loading/unloading of the main stretcher. The surface of the main frame of the support is treated with a 12-micron anodic that grants resistance to corrosion and rust.





### 11.1 – MAIN STRETCHER - standard

**N.1 AUTOLOADING MAIN STRETCHER model SPENCER CARRERA**, complete with original locking system certified according to EN1865-1. The rear legs of the stretchers have an innovative suspension system able to reduce the vibrations and noises of the cobbled floor before they are transmitted and felt from the patient. This allows a better stability, more precise steering and a smoother transport also on uneven surfaces.



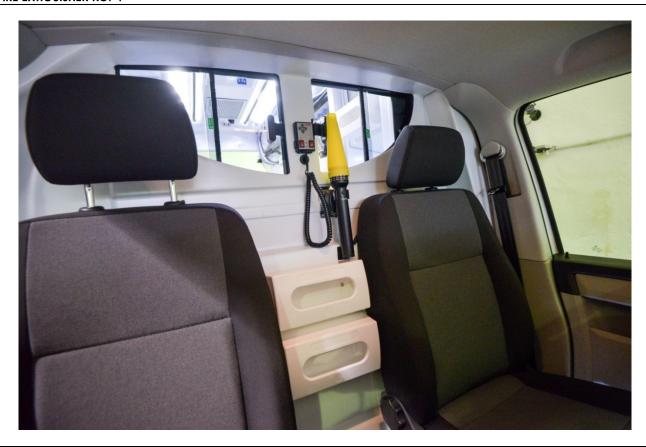


#### 12 - FITTING OUT IN DRIVER COMPARTMENT - DIVIDER WALL - standard

**COVER OF THE PARTITION WALL ON THE DRIVER CABIN SIDE,** made with a double panel of composite RTM and rounded edges and smoothed surface easy to clean and disinfect. Designed to exploit the spaces in the best possible spaces of the driver cabin. Between the covers a insulated material is set to improve the acoustic comfort.

N.1 TORCH NX270 for illumination and signalling, with wall recharging base. Supplied with yellow and red cone for emergency signaling and tripod stand to set it on the road

#### N. 1 FIRE EXTIGUISHER KG. 4





### 13 - EQUIPMENT IN DRIVER COMPARTMENT - Standard

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**CONTROL PANEL IN DRIVER CABIN** set in the vehicle original compartment in the dashboard or in a support (single or double) which is set on the dashboard, the control panel has a colour serigraphy, button with symbols and function indicators for a rapid spotting of the available services. The buttons are retro illuminated and with a led warning light indicating "service activated". The control panels, in driver cabin and the one in medical compartment, communicate together.

N.1 LONG CARTER set on the dashboard, useful to set a radio

N.1 MAP READING LIGHT, set on the right strut

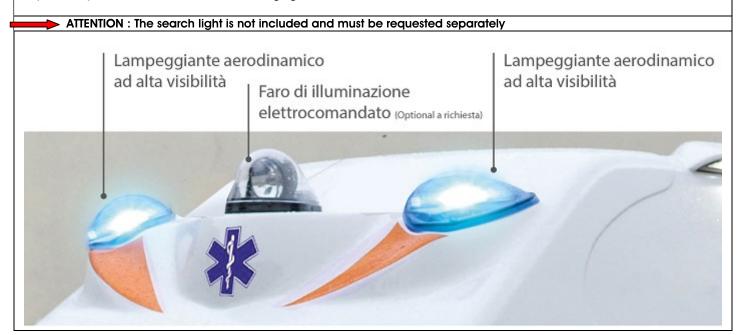




#### 14 EXTERNAL SIGNALLING LIGHT (FRONT)

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N.1 FRONT SPOILER AIR118 made of composite material RTM white colour, aerodynamic, perfectly integrated in the body vehicle to grant a reduced air resistance while driving. Complete with n.2 flashing lights each composed of 8 Power Blue Led with high light intensity, with functions also of cruising lights, integrated in the spoiler and protected by a blue cover in methacrylate that also amplifies the luminosity. The position of the flashing lights allows the visibility to the emergency vehicle even from above. Upon request it is possible to house also a searching light.



#### 15 - EMERGENCY ACOUSTIC SIGNALS

**N.1 TWO-TONE SIREN EURO GE 12/24Vdc.** (40 cycles per minute) double cone , approved in Italy, (not visible from outside) set inside the front strut with the two cones against the original vehicle mask.

 $\textbf{N.2 SPOT FLEX BLU LED LIGHT, FRONT , set in the grido f the vehicle.} \ \ \textbf{With high intensity light}$ 



#### 16 - EXERNAL VISUAL SIGNALLING (REAR)

N.1 REAR SPOILER AIR 118 made of composite material RTM<sup>2</sup> hite colour, aerodynamic, perfectly integrated in the body vehicle to grant a reduced air resistance while driving. Complete with n.2 flashing lights each composed of Power Blue Led with high light intensity, with functions also of cruising lights, integrated in the spoiler and protected by a blue cover in methacrylate that also amplifies the luminosity.

**N.2 Round white LED lights** to light up the rear stretcher loading/unloading area. The lights have a reflective crown all around. They activate automatically with the opening/closing of the rear doors.

The white lights activate automatically when revere gear is inserted

**N.2 round orange LED signalling lights**, (they activate automatically with the opening/closing of the rear doors) + additional red stop light in the central part.

N.2 round red LED acting as additional stop lights



#### 17 – EXTERNAL GRAPHIC

- **EXTERNAL STANDARD GRAPHIC LIVERY**, for identification of the vehicle, made with reflective material and composed of :
- N.1 perimeter band 20 cm. high set along the whole outline of the ambulance.
- N.1 Mirror writing "AMBULANCE" set on the front hood of the vehicle.
- N.2 band 20 cm high set in the internal part of the rear doors.

#### 18 - DEVICES, EQUIPMENTS AND SUPPORT SUPPLIED - Standard

- N.1 SUPPORT to hold a toolkit, made of painted metal and set in the niche of the internal left rear door .
- ${\sf N.1}$  SUPPORT to keep a set of 3 PVC helmets, made in painted metal and elastic net .
- N.1 SUPPORTO for a portable oxygen bottle of 2/3lt. Complete with ratchet tighteners and anti-vibration band. The support is set in the rear left corner in order to have the bottle always available



#### 19 - SUMMARY OF THE OPTIONAL INCLUDED IN THE OFFEZO

#### **External fitting out**

- N.2 TRILED SPOT BLUE LIGHT OF SIGNALISATION IN THE FRONT GRID
- N.1 UNIVERSAL RADIO AERIAL UHF VHF
- N.2 ILLUMINATION WITH BLUE LED STRIPE AT THE REAR AND LATERAL ACCESS OF MEDICAL DEVICE
- N.1 STANDARD EXTERNAL GRAPHIC

#### **Equipments**

- N.1 STRETCHER SUPPORT, FIX, WITH DOUBLE COMPARTMENT UNDERNEATH
- N.2 FIRE EXTINGUISHERS DA KG.4
- N.1 RECHARGEANBLE TORCH NX270 in driver compartment
- N.1 MAP READING LIGHT in driver compartment

#### **Systems**

- N.1 INVERTER 12V./220V. WTIH EXTERNAL SOCKET
- N.1 SOCKET 12v FOR REFRIGERATOR
- N.1 CONTROL PANEL CP10 with back lighted button in driver compartment
- N.1 NEW CONTROL UNIT IN MEDICAL COMPARTMENT WITH BIG COLOUR DISPLAY QUADRO

#### Housing and supports

- N.1 RACK for the FIXATION OF THE MEDICAL EQUIPMENT HOLDERS
- N.1 3 GLOVE BOX HOLDERS
- N.1 CARTER TO INSTALL A VHS RADIO
- N.1 SUPPORT FOR A TOOL KIT
- N.1 SUPPORT FOR 3 HELMETS
- N.1 SUPPORT FOR VACUUM MATTRESS
- N.1 SUPPORT FOR PORTABLE OXYGEN BOTTLE
- N.1 SUPPORT FOR SPLINTS AND OTHER MATERIALS IN THE NICHE OF THE RIGHT WINDOW

20 MODIFICATION, INTEGRATION DEMANDED BY YOU THAT WILL BE MADE TO THE STANDARD FITTING OUT included in the price of the supply indicated at the point 21 (Economic offer)



	OFFER

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Product	Net discounted price
Vehicle VW T6 2.0 TDI PL - 150 HP - 4 * 4 + fitting out 112T6 AMBULANCE + optional	

Net prices, VAT not included .

• Delivery : Ex works

#### 21 PAYMENT TERMS

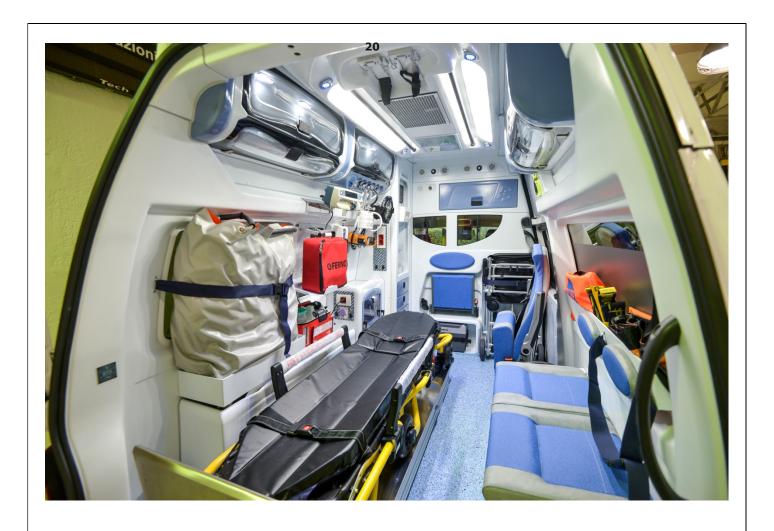
a) 50% at order, balance before shipment

#### 15 CONTACT PERSON

For any additional information or explanation, please do not hesitate to contact us

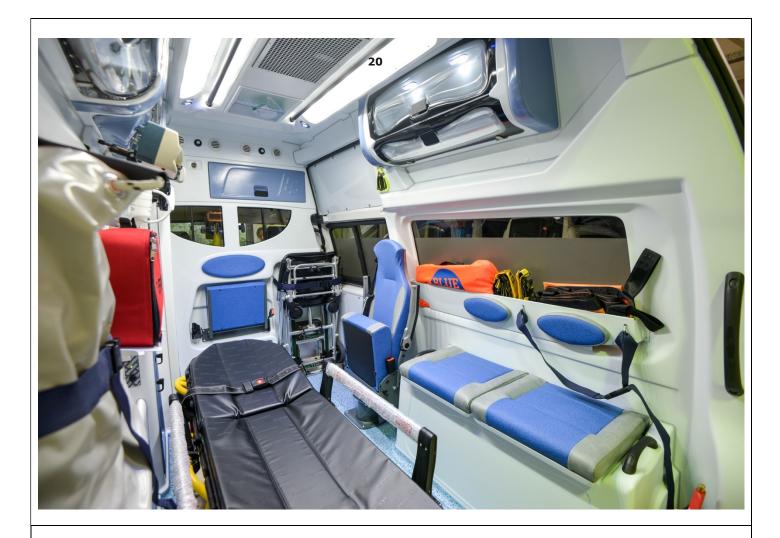
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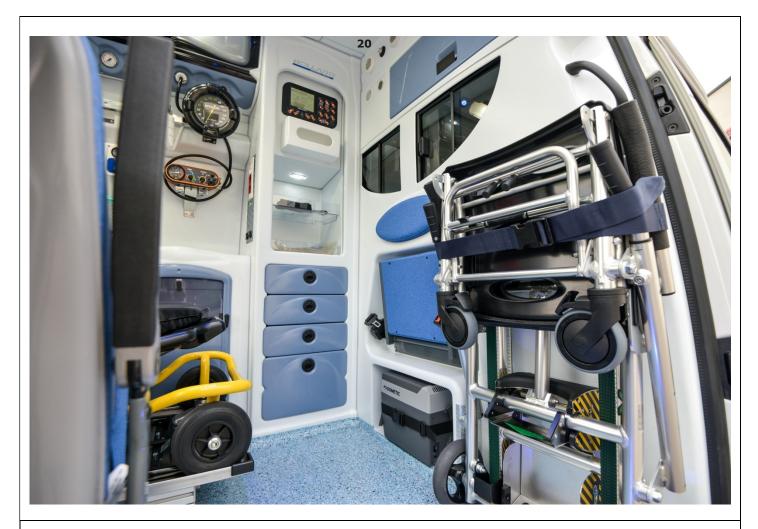






























Nelle immagini che seguono è rappresentato una variante di allestimento nell'angolo posteriore della fiancata sinistra. N.1 Vano verticale alto fino al pensile, utile per alloggiare un materasso a depressione, oppure una tavola spinale pediatrica o altri dispositivi. **Questa variante ha un supplemento di prezzo fornito a richiesta.** 







Nelle immagini che seguono è rappresentato una variante di allestimento esterno. L'ambulanza è dotata di spoiler SUPERVISOR con Minispoiler Lumix a luce Blu centrale. **Questa variante ha un supplemento di prezzo fornito a richiesta.**20





