

TAKING THE FIELD IN **DEFENCE AND SECURITY**



TEKNE

www.tekne.it

DEFENCE AND SECURITY

STRENGTH AND RESISTANCE MADE IN ITALY

Tekne has a solid reputation in the **design and construction of vehicles, electronic equipment and systems for applications in critical environments and in complex scenarios**, where it is necessary to prevent, manage and counter heterogeneous threats through transversal skills, ranging from the most advanced technologies in the field of telecommunications and electronic warfare to vehicle protection and armouring processes.



WHAT WE OFFER YOU

- ▶ **Protected** vehicles, APC, MRAP, etc.
- ▶ **Tactical and multi-role** vehicles
- ▶ **Logistic** vehicles and trucks; vehicles for extreme environments
- ▶ **Armouring** of civil and commercial vehicles
- ▶ **Preparation** of commercial vehicles (*mobile offices, ambulances, ...*)
- ▶ **Transformations, fittings and customization** of vehicles
- ▶ Mobile and sheltered **"Command and Control"** posts
- ▶ **Electronic warfare** systems
- ▶ **Radiocommunication** equipment and systems
- ▶ **Telecommunications** systems, local and geographic networks
- ▶ Systems for the **safety of Critical Infrastructures**
- ▶ Systems for **"Situation Awareness"**
- ▶ **Automotive** systems
- ▶ **Integration** of complex systems (*System of systems*)



GRAELION IN A NUTSHELL

- ▶ Permanent 4x4 drive
- ▶ Heavy duty frame and mechanics
- ▶ Versions from 6 to 9 tons of total mass
- ▶ FPT 3.0L or Cummins 4.5L Diesel engine
- ▶ Manual or automatic gearbox
- ▶ Portal axles
- ▶ Configurable cabins, from 2 to 7 seats
- ▶ Van or tip versions
- ▶ Protected-armoured version

TO BE VERSATILE

GRAELION 4X4

GRAELION is a **mid-range multi-role vehicle, designed for use in harsh and off-road environments.**

It was designed for defence applications, but it is also having success in special civil sectors such as emergency, firefighting and civil protection.

We took care of the concept and design of the entire platform: the axles, the transfer case, the chassis in its multiple versions and the different cabs have all been developed and are produced by the Tekne technical team, which also makes its experience available for the creation of **customized versions** to meet the mission needs of its customers.



Discover all TEKNE products and solutions on our website.



DEFENCE
AND SECURITY

The multiple versions available and the possibility of creating custom variants make it the ideal vehicle to suit the various multi-role needs of modern armies.

TO PROTECT

PRAETORIUM - APC 4X4

Designed by Tekne, PRAETORIUM is a **protected vehicle capable of operating in harsh environments**. The internal layout, flexible and configurable, allows a multiplicity of versions and transport up to 10 passengers.

The **armour, customizable and certifiable Stanag 4569**, allows to protect the occupants from threats of various types (*KE, IOD, Mine, etc*).

A specific frame, developed by Tekne, together with a powerful engine and an adequate mechanics, together with an optimized weight distribution and center of gravity, guarantee the PRAETORIUM **performances of absolute importance compared to similar vehicles on the market**.

ARMORED VEHICLES

Strengthened by a *Research and Development* department in which dozens of engineers and designers with specific skills work, **we design and manufacture armours on commercial vehicles** starting from the detection and modeling of the 3D structure of the vehicle, passing through the design and simulation for the checks of ballistic resistance and resistance to explosions, to the realization of the laboratory prototype, from test on the bench and in accredited laboratories, getting to series production.

Furthermore, the presence within the company of the skills in electronic warfare, radio frequency and radio communications, allows us to offer a complete product: the vehicle can be natively equipped (*and therefore validated*) with radio equipment and Counter UAV / UAS and Counter RC_IED systems.



The saddle frame and the optimized cab allow the PRAETORIUM to be transportable, without preparation, on Hercules C-130 aircraft.

TO GIVE AID MEDICAL VEHICLES

Ambulances: set-ups for EN1789 compliant ambulances of type A, B and C.

MedEvac: mobile rescue platforms for transporting casualties from the battlefield.

SPECIALTY VEHICLES

Vehicles of various types (*cars, vans, trucks ...*) transformed and set up according to the specific needs of the customer and our experience.

We create vehicles with special equipment for specific rescue teams, like divers, dog lovers, bomb squads, telecommunications, mountain rescue, genius, etc.



ROAD RECOVERY AND MOBILE WORKSHOPS

Vehicles for the recovery of damaged vehicles, from tow trucks to cranes for heavy vehicles, made on various frames of major manufacturers.



TO ORGANIZE VEHICLES FOR LOGISTICS

We design and manufacture logistics support vehicles, specifically designed to ensure safety and reliability to the departments:

- ▶ Troop carrier trucks and buses
- ▶ Freight trucks
- ▶ Tankers (water / fuel)
- ▶ Mobile workshops
- ▶ Shelter carrier trucks
- ▶ Multirole vehicles

PEOPLE TRANSPORT

Troop transport by truck, but also by bus: the **new fleet of a hundred BUS HORTON, delivered to the Ministry of Defence** to be used for the transport of Army personnel throughout Italy, is made by Tekne. A length of 9.4m allows transport in the safety and comfort of 35 passengers.

These vehicles are completely built in our workshops, with a **sturdy structure in stainless steel and aluminum paneling**. All the systems onboard are controlled by a software designed and built by Tekne.

They have been chosen by the **Ministry of Justice** in its HORTON-P version - special use for prisoners transport and it has been in use since 2020 throughout Italy by the Penitentiary Police Corps for the transport of 16 detainees to five detention cells, 8 escort operators and 1 driver.



SHELTER CARRIER

Thanks to the experience gained in other areas, Tekne has designed and produced for Italian Airforce some tactical-logistic vehicles for the BMC4 SIRIUS system, which is one of the key elements of the new MAADS air defence missile system.

The special trucks are equipped with an interchangeable system that allows the quick change of configuration between the different set-ups provided. The driver's cab, forward and lowered, allows the vehicle boarding, without preparation, on C-130J-30.

ELECTRONIC SYSTEMS

Thanks to a team of engineers with decades of experience, TEKNE expresses its skills in the fields of tactical and infrastructural communication systems, in electronic warfare and in particular in analysis of radiofrequency signals, in the construction of mobile command and control units, in CBRNe systems (*laboratories and vehicles*), in electronics and wiring for the automotive sector.

TELECOMMUNICATIONS

Infrastructural and tactical telecommunication systems for use in defence, and industrial markets and government agencies.

- ▶ **Wired and geographic fiber networks**
- ▶ **Classified wired networks** (*pre-installation analysis, physical and technical requirements, zoning, COMSEC Centers planning*)
- ▶ Radio **link networks**
- ▶ Networks in TETRA **technology**, DMR, etc.
- ▶ Local or geographical networks for the **remote control of sensors** (*environmental, CBRN, seismic, etc.*)
- ▶ **Radio communication systems** in HF, VHF, UHF and SHF bands, from a few watts to several kW of power
- ▶ **Software systems for telecommunications networks management** (*OSS, Software Operations Support Systems to support configuration, monitoring, control, fault analysis and complete network management*)
- ▶ **Spectrum monitoring vehicles**
- ▶ **Communication, Command and Control Vehicles and Shelters**

ELECTRONIC WAR

- ▶ Electronic Attack or Electronic Countermeasure solutions
- ▶ Electronic Protection or Electronic Protection Measure
- ▶ Electronic Support or Electronic Support Measure

In particular:

In the electronic attack we offer an entire family of Jammers based on SDR architectures equipped with electronic support capabilities that allows use in "reactive" mode. The "SDR" approach allows you to have configurations for contrasting RC-IED, UAV / UAS and enemy communications.

The main members of the family are:

- ▶ **J4VIP-T**: Top performance reactive jammer for protection vehicle and convoy from IED, and from UAV / UAS and for the disturbance of enemy communications
- ▶ **J4MPR-T**: Jammer Man Portable Reactive
- ▶ **J4SKY-T**: Jammer, small size and for fixed installation, on pole, tripod or wall, for UAV / UAS protection
- ▶ **J4INC-T**: Indoor jammer, for communication disturbance inside buildings

In addition to the "standard" solutions mentioned above, we also offer the "Long Range" and "Extended band" (*from HF to SHF!*), already operating in theaters for which specific requirements and particular performances have been identified, not available on the market to date.

In the field of electronic warfare systems for communications and for UAV / UAS protection applications, Tekne is developing, around the "core", consisting of the Jammer with support capacity electronic, a complete system for the protection of vehicles and convoys against the threat of UAV / UAS. The system, thanks to the architecture of the Jammer and the command and control system connected to it, allows to integrate also further components for the revelation - identification of the drone and / or for its possible neutralization (*eg hard-kill*). On the basis of the requirement and the threat, Tekne can accomplish any turn-key solution.

In the electronic attachment-support, Tekne manages maintenance and updating of interception, disturbance and direction finding systems in HF and VHF band.



INFRASTRUCTURE SAFETY CRITICISM

- ▶ **CRBNe risk protection systems** (*Chemical, Biological, Radiological, Nuclear and Explosives*) with vehicles and workshops on vehicles and inside shelters
- ▶ **Control systems** based on heterogeneous sensors (*video, IR / electro-optical, radar, sensors perimeter / anti-intrusion, etc.*)
- ▶ **Environmental monitoring systems**

SITUATION AWARENESS

- ▶ **Real-time indoor localization** systems
- ▶ **Blue Force Tracking** Solutions
- ▶ Tactical **video transmission** systems

LABS FOR SYSTEMS DEVELOPMENT AND QUALIFICATION

Tekne is equipped with modern **laboratories for Tools Calibration** and for **performing** different types of tests, as per civil, military, railway standards, etc.:

- ▶ Anechoic chamber for electromagnetic compatibility tests
- ▶ **Radiate emission**
- ▶ **Conducted emission**
- ▶ ESD immunity
- ▶ "TEMPEST" tests
- ▶ Vibrating system for testing equipment and materials for installation on board vehicles
- ▶ System for "shock" generation
- ▶ Climatic chambers for environmental tests
- ▶ Temperature
- ▶ Pressure
- ▶ Humidity
- ▶ Saline fog
- ▶ Rain
- ▶ Immersion



TEKNE

WHO WE ARE

Experts in **special vehicles and electronic systems**, we are designers and manufacturers, proudly Italian!

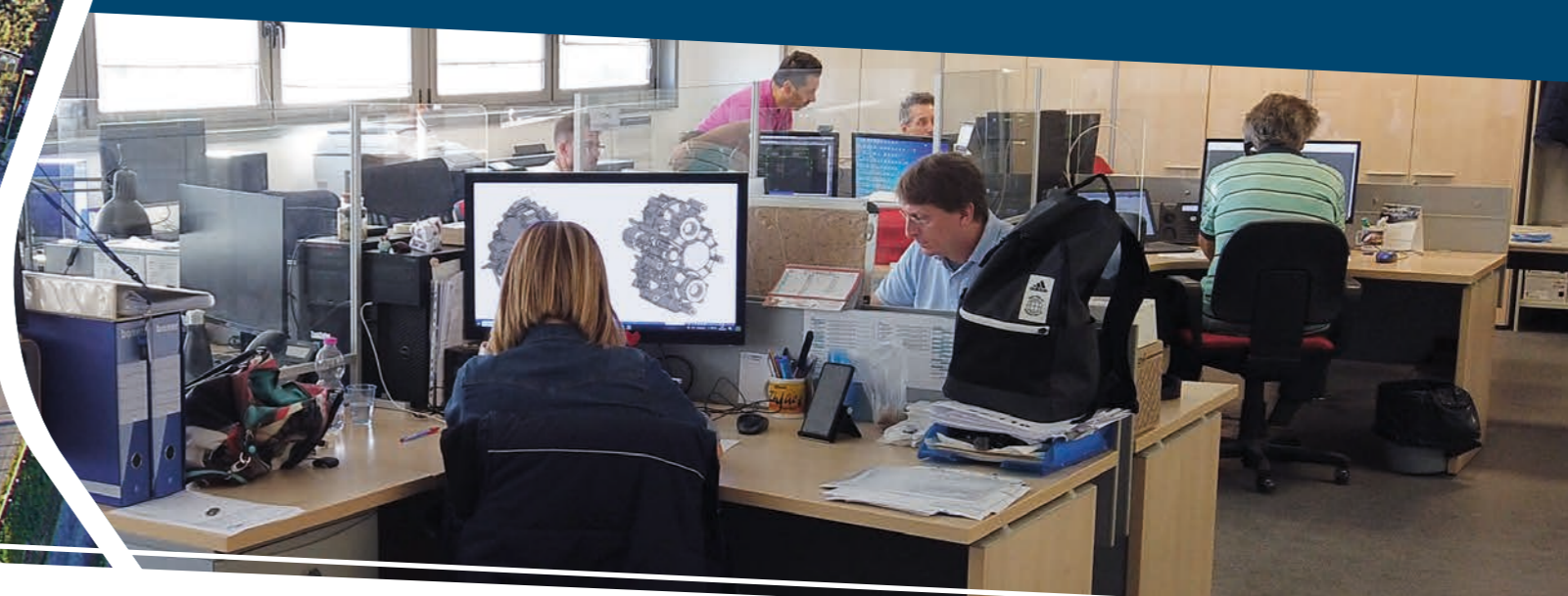


OUR OFFICES

TEKNE is an expanding ITALIAN company with 6 offices in Abruzzo and Emilia Romagna.

In addition to the direct staff of about 200 engineers, designers, technicians and specialized workers, we manage a loyal network of partners, suppliers and collaborators, mostly local premises, to which we entrust external work under our control.

The company know-how embraces different fields and sectors such as electronics, mechanics, automotive and telecommunications, both in military and civil sectors.



Thanks to transversal skills gained in over 30 years of presence on both Italian and foreign market, we deal with **design, production, transformation, preparation, sales and assistance** of vehicles (*industrial, special, military, for transporting people*), their parts and spare parts and systems and services related to electronics for automotive, defence and security, in military and civil fields.

The high competence of the technical staff, together with the continuous research and development of new and best solutions, are our main characteristics, allowing us to be qualified suppliers of vehicles and systems for National, NATO and UN FFAAs. In national market in recent years we gained very important contracts launched with important institutional clients such as the Ministry of Defence (*Army, Air Force, Carabinieri*), Ministry of the Interior (*Fire Brigade, State Police*), Ministry of Justice (*Penitentiary Police*), Presidency of the Council, Red Cross, Civil Protection and many others.



Technological research, design and development, system integration, prototyping and production, laboratory and field tests, validation and qualification, engineering, after-sales services.

From idea to reality, we are the partner you are looking for.



**Defence
and Security**



**Emergency
and Rescue**



**Mining
and Construction**



Oil & Gas



Tourism



Public Service

TEKNE SRL

www.tekne.it - sales@tekne.it

Phone: +39 0871 938820



M&CDEP012-008ENEd01

