



February 2013



JANUARY 2013 :
PentaRail S.r.l. is created

It is a Company that aims to be part of European Railway scenario either for Maintenance / Engineering Maintenance and Full Service activities.

We do not aim to be simply a provider of manpower, but as an ideal partner able to provide a full service going from realization up to installation and homologation of subsystems.

The Company is certified according to ISO 9001 e ISO 14001 standards.



WHO WE ARE:

This new Company is generated by connection of Italian and French capitals. It is based on the synergy of people who matured since years different experiences and competences in the railway field. Now they want to share those experiences and competences providing them at disposal of Customers

Action area is aimed to be not only Italy, but also abroad

WHERE WE ARE:

Offices are located in the southern Milan area.

COMPETENCE

Our engineers are highly specialized and qualified in order to accomplish in the best way the operative actions applied to all the working areas of the Company.

Our engineers are able to provide a focused support concerning the maintenance services. The aim is to be able to solve together with Customers every type of problems that could be generated during maintenance process itself.

OUR MAIN FEATURES:

- ☐ Operative capabilities in Italy and abroad;
- ☐ Consolidated Competences ;
- ☐ Highest quality, flexibility, versatility and proactivity of the transaction.

OUR OPERATIVE AREAS:

- ☐ Air conditioning system;
- ☐ Ground and on-board Safty systems;
- ☐ Mechanics;
- ☐ Rolling stocks push-pull systems;
- ☐ Electronics;
- ☐ Spare parts on request.



AIR CONDITIONING SYSTEMS

Working Services carried out by highly specialized operators able to perform operations such as:

- ☐ Preventive and Corrective Maintenance of air conditioning systems installed on rolling stocks.
- ☐ Upgrade of air conditioning systems installed on rolling stocks
- ☐ Installation of new air conditioning systems on new or revamped rolling stocks
- ☐ Service of sanitizing and cleaning for HVAC systems including air distribution.
- ☐ Supply all spare parts for systems installed on all type of rolling stocks



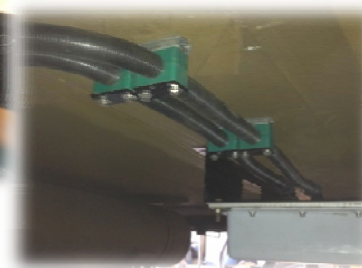


SAFETY SYSTEMS ON-BOARD OF ROLLING STOCKS

Working Services carried out by highly specialized operators able to perform operations such as:

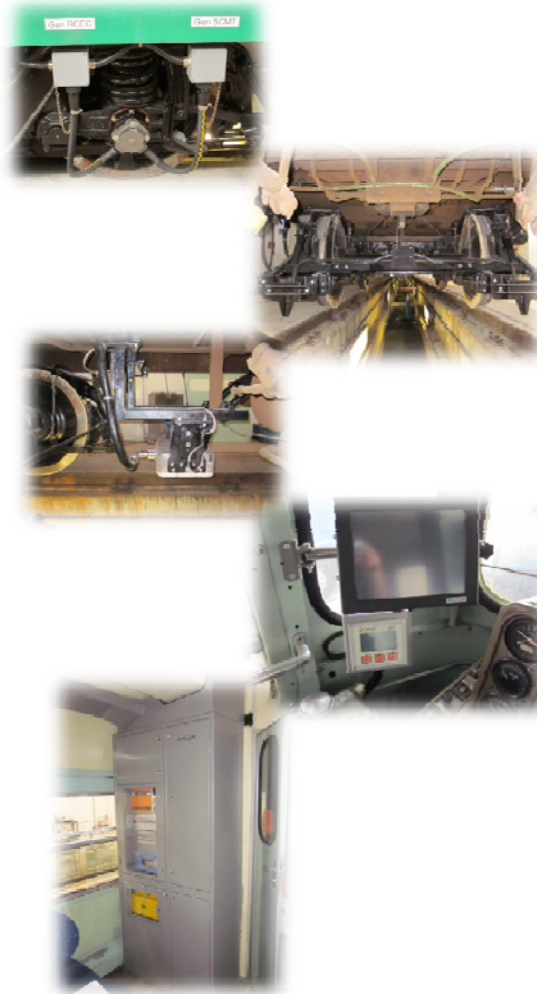
- ☐ Design of on-board installation for signaling systems ETCS / ATP / ERTMS / SCMT / SSC BL3;
- ☐ Supply of all components related to the installation design.
- ☐ Installation of all components related to the construction of the installation design.

- ☐ Technical assistance in order to support Customer during on-board installation.
- ☐ Certification of all welded components that are part of the systems installed on-board. (Penetrant Liquid control, Magnetic Powder control)
- ☐ Structural calculation (FEM).



APPLICATIONS

- ☐ Odometric interfacing
- ☐ RSC interfacing
- ☐ RSDD interfacing
- ☐ MMI interfacing
- ☐ Treno interfacing





MAINTENANCE - ASISTANCE

Our technical team is highly qualified for activities to be carried out on rolling stocks.

Thanks to the members of this team and to their skills of Maintenance Engineers PentaRail is able to develop, build and be owner of each technology.

In his way PentaRail is able to guarantee a constant service support providing quality and reliability while operating and keeping at the same time all requirements of functionality and safety.

A list of some skills of our team are reported as evidence of what above reported.

Specialized members of our team has the following authorizations and licences:

- ☐ Licences type “A” for enabling trains and loco.
- ☐ Welding licences for steel components
- ☐ Driving authorization “AT”:
TV 212, TV 212 BIS, TV 213, TV 213 BIS.
- ☐ Authorization to use equipments like Shunting loco, Motorized lifting systems (> 200 kg), Cranes, Fork lifts.

Previous experiences of our team.

Sperimentation and Commissioning:

- ☐ Metro Madrid
- ☐ Metro Genova
- ☐ DMU IC4

Electical / Electronic / Mechanical Assistance:

- ☐ Tram Sirio ATM
- ☐ Tram Sirio TEB

Rolling stocks Warrenty Assistance:

- ☐ Driverless Metro Copenaghen

Rolling stocks Maintenance:

- ☐ ALe 724/582/642 e AIn668/663
- ☐ E646, E656, E402 A/B
- ☐ ETR 460, ETR 470, ETR 485



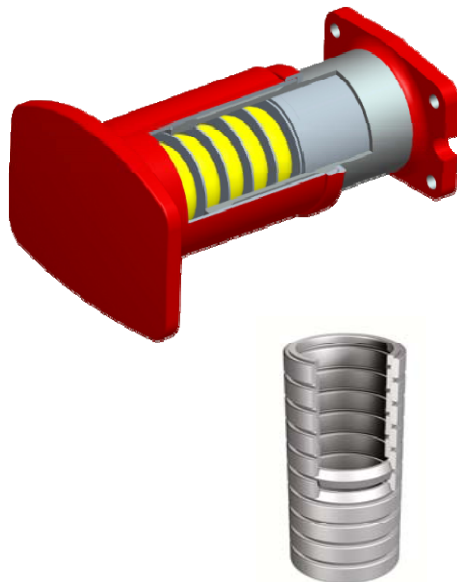
MECHANICS

- ❑ Supply of components according to Customer's requirements



PUSH – PULL EQUIPMENTS

- ❑ Supply of traction automatic couplers Willison or AAR type for particular applications and bumpers with rubber / steel springs.



ELECTRONICS

- ❑ Trouble shooting and repair of electronic components for control equipments or electronic converters
- ❑ “ Upgrade” of obsolete electronic components or out of production

