

Design and Technologies Development in the railway field



products and systems

Testing Area

Production of equipment, systems, test benches and technological systems to perform verification, testing and checking of rolling stock and its components. IRMIE IMPIANTI meets the requirements of tests on rolling stock in production and maintenance phases, with the certainty of finding a suitable and practical response to any needs.

IRMIE IMPIANTI realizes test rooms and test stations for complete train.

Test Benches

Realization of test benches with manual or fully automatic control for components or parts of railway vehicles.



Bogies test bench



AC/DC motor test bench



Static converter test room



Motor test bench



Asynchronous traction motor test bench

Static converter test bench

Testing Room Power Supplies

needs we propose converters of few kilowatts to 3MW and above. The converters can be mono or multitension, fixed or adjustable voltage, with rated voltages of 50Hz 25kV - 15kV 16 2 / 3Hz - 50Hz 1.5kV - 3kVDC - 1.5kVdc - 750VDC - 600Vdc. We produce complete solutions even in containers and prefabricated cabins.



Realization of power supplies for electric strength tests on components.

The product range varies according to the maximum test voltage (5kV - 7.5kV - 15kV - 60kV) and power.

Command and control will be easier thanks to industrial touch screen.

It will be possible to store the tests done.

Electric Strength Test



High speed Circuit Breaker Test



Realization of equipment to test the brake of single vehicles or complete trains. The systems are designed to control manually or automatically with computer and radio control. Depending on the applications, the type of test to do and the environment use are carried out multiple solutions.

Brake Test



Static Converter

Construction of static converters for railway applications. In particular DC and AC converters to feed testing room or contact lines on the test track, charge/discharge batteries and other applications. Here you can find the main applications, remembering that our engineering structure is able to evaluate solutions tailored to the customer needs.

The static converter can be realized at different rail/subways and tramway voltages.

For Electric Traction

Construction of static converters for feeding trains in the maintenance depot.

We realize solutions with power of a few tens of kW to 3MW and above on request.

It is possible to have single voltage converter or

MULTIVOLTAGE configuration:

50Hz 25kV - 15kV 16 2 / 3Hz - 50Hz 1.5kV - 3kVDC
-1.5kVdc - 750VDC - 600Vdc.



Multivoltage system



At the Four RIC Voltages

We realize static converters with AC/DC-AC/AC multitenion voltages output to the four international RIC voltages:

- ▶ 1000V a 16 2/3Hz;
- ▶ 1500V a 50Hz;
- ▶ 1500Vdc;
- ▶ 3000Vdc.

Mobile Solutions

with security system in containers or equipped vans. These solutions allow an easy portability and reduce the installation costs.



Batteries Charger

We produces batteries charger designed for application in the rail/subway field.

In particular, easily movable wheeled batteries charger and charge/discharge batteries bench.

IRMIE IMPIANTI produces turnkey solutions for managing maintenance of batteries in the depots.

Preheating / Air-Conditioning (REC)

We realize individual cabins or centralized systems that allow you to power a train stopped with the main purpose of heating or cooling prior to use.
Another application of the REC is also to feed depots for testing.
The convoys supply parked is given through a suitable cable with its plug.
We realize solutions to various power supply voltages of international systems, resulting from the input power line contact.

Single Cabins

This solution is used for 3000V - 1500V - 750VDC systems. The cabin designed for outdoor installation is small, therefore, also suitable for installation between the tracks.

The equipment REC is able to protect the load powered in case of short circuit.
Its use is easy and in complete safety for the operator.



Where it is necessary to feed more tracks, we realize centralized solution, i.e. cabins with protection and disconnection function that can supply power to more outlets located near the track. This solution can be achieved for each DC and AC power system.

Centralized Installations



Outside REC cabins



Internal control cabins

Mobile Units

Custom realization on van or equipped mobile vehicles to provide power to the trains stopped.
The converters are powered by a diesel generator.



Infrastructure

A consolidated experience regarding the construction of MV/LV transformer substations both inside an existing building or to be made, both within a concrete prefabricated.

On request of a technical consulting to identify the most appropriate solution technically and economically more advantageous, our company, thanks to our great experience, can also provide a technical appropriate support to that purpose, including professional consultations on site.

Transforming Substations

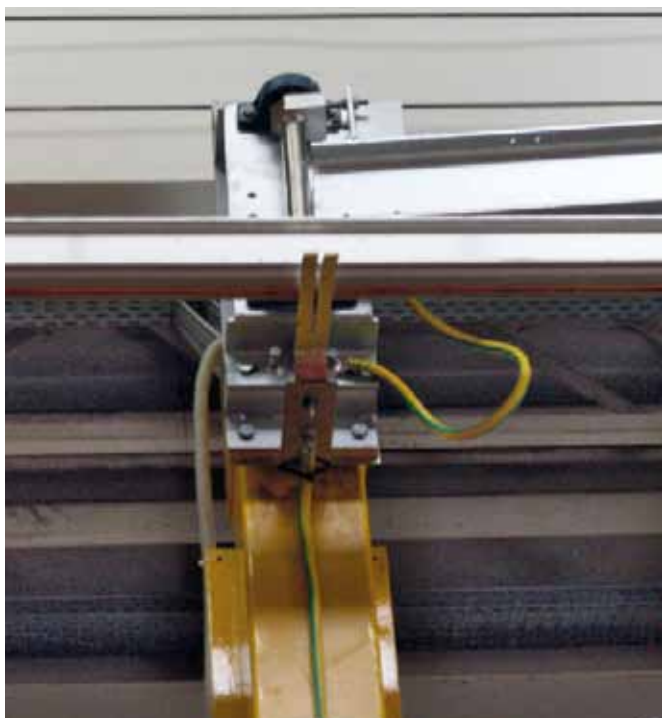
The transforming substations are all the ancillary works necessary to make plants turnkey, i.e. MT lines installation, realization of exterior and internal terminals, installation of devices for external disconnection, earthing etc. In addition to the supply and installation on site for MV/LV cabin, our company also makes extensions and modifications of existing substations and technological adaptations of them.



IRMIE IMPIANTI can install rigid and section mobile catenaries, therefore with the possibility of having sections that can be moved to use the bridge cranes or to access on the top of the train.

IRMIE IMPIANTI realizes control systems for mobile catenaries that can be powered at different voltage levels, providing adequate optical and acoustic warning signals.

Rigid Catenaries



Engineering Services

IRMIE IMPIANTI offers different Engineering Services, especially in railway sector:

- ▶ Technical-Economic consulting, including feasibility studies, studies of revamping and retrofitting of equipment and systems, whether or not of our implementation;
- ▶ Design, activity that uses both internal resources and experienced professionals;
- ▶ Complete after-sales technical support;
- ▶ Training courses for operatives to our products, held by experienced personnel in the railway field;
- ▶ Study of layout plant;
- ▶ Integration of different project and organizational activities under a single responsibility (General Contractor);
- ▶ After-sales service supply of spare parts, with ample storage available.

Maintenance Service

Why maintenance is necessary?

All technological systems are subject to aging processes, linked to external agents and operating conditions. During the lifetime of a system, there may be detectable only wear in advanced stage of degradation. To optimize the performance of the systems over time, we offer the possibility to use a structured Maintenance Service, highly configurable according to the needs of the customer.

The Maintenance Service proposed by IRMIE IMPIANTI can anticipate the deterioration of the components following all the operations and critical aspects of the maintenance.

IRMIE IMPIANTI has the know-how to extend its maintenance service to equipment even of not of its realization.

Company Profile

IRMIE IMPIANTI is a plant engineering company integrated in a global context.

We are a young and dynamic company, with a considerable experience in the areas of test benches, energy, traction, processing and distribution always at the forefront of systems design and installation for the railway industry and installations in general.

The openness to innovation and attention to change and to market demand has stimulated the creation of an agile structure and professionally prepared, with advanced technical means which enable to design and build tailor different types of plants turnkey using:

- ▶ CAD design;
- ▶ Design project management and execution of all phases;
- ▶ Research and application structure of advanced technologies.

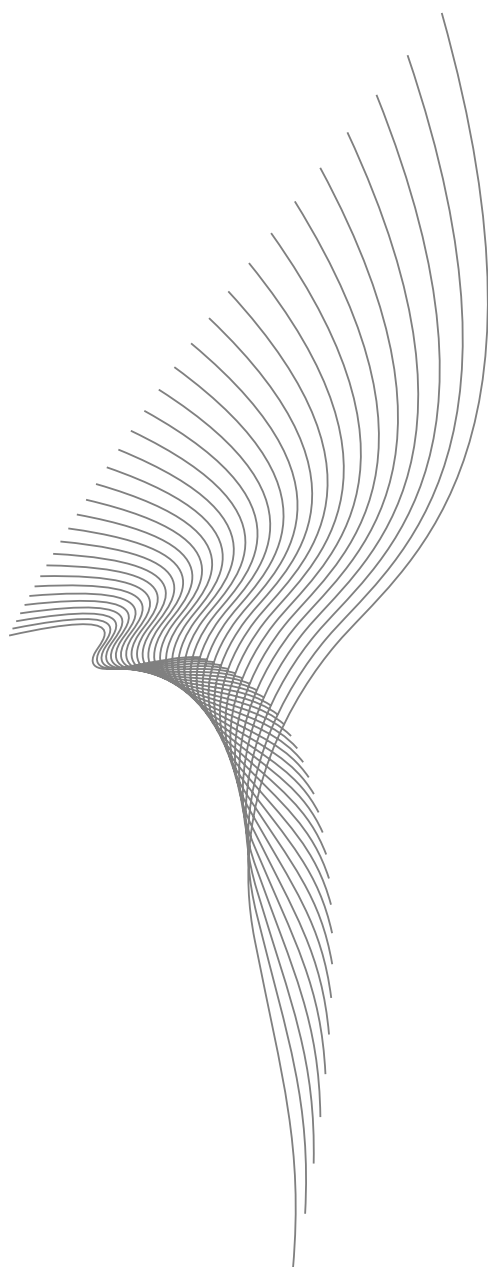


Head office in Signa- Firenze



Branch in Sona-Verona

For more details please visit our website: www.irmieimpianti.com



Head Office: Via Giorgio La Pira, 20/22
50058 SIGNA (FI) ITALY
Tel. +39 055 8790388 +39 055 8790391
Fax. +39 055 8790884

Branch: Via dell'Industria, 17
37060 SONA (VR) ITALY
Tel. +39 045 6090355
Fax +39 045 6088735

e-mail: info@irmieimpianti.com • <http://www.irmieimpianti.com>



Tax Code/Vat/ Italian Trade Registration IT-04519650487
Italian R.E.A. Registration 459952