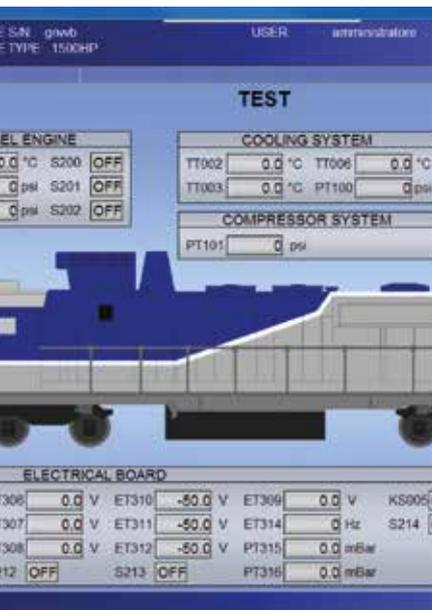
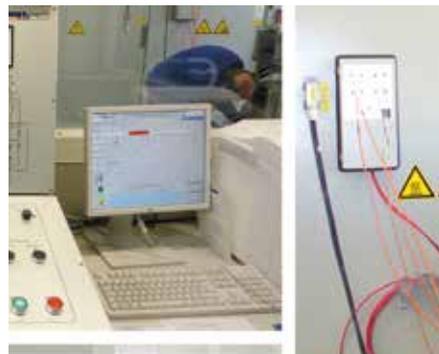


TEST BENCHES



Test Equipment and Systems

Irmie Impianti produces equipment, systems and test benches to carry out tests of rolling stock and its components.

The company meets the requirements for rolling stock testing, during the production and maintenance phases, by identifying suitable and functional responses to specific needs.



Bogie Dynamic Test Benches

The bogie dynamic test bench enables dynamic tests on railway and metro bogies, with 2 or 3 axles, both motor and trailer type.

This is normally used for operational testing of bogies, predictive maintenance or for the after maintenance testing.

During tests, measurements are taken via a system of external sensors or through the acquisition of signals from sensor on board of the bogie.

Readings are taken of rotation speed, temperature, vibrations, noise and electrical values on the motors. It is also possible to test the brake system of the bogie.



Traction Motor Test Benches

We realize test benches for direct current motors (DC) and alternating current motors (AC).

In particular, this enables testing of traction engines with outputs up to 2 MW and auxiliary motors.

The test benches are produced in various configurations, according to the requirements of the tests to be performed, by type or routine versions, in observance of current international laws.



Gearbox Test Benches

The reduction gear test bench can be realized in two configurations: for reduction gear testing under no load or in load conditions.

This is normally used for operational testing of the room (with or without bushes), predictive maintenance or for after maintenance testing.

During tests, measurements are taken via a system of external sensors or acquiring signals from internal sensors.

The reduction gear can be tested up to the maximum rotation speed.

Readings are taken of rotation speed, temperature, vibrations, noise, besides electrical values on the motors.



Auxiliary and Traction Converter Test Benches

We realize complete test rooms for static converters of rolling stock, in particular for testing traction converters, auxiliary services and their modules and components. Tests can be performed under full load or at reduced power.

Through the bench it will be possible to feed the converter at fixed or adjustable tension with resistive, inductive or mixed load. The acquisition of the main parameters in different operational regimes allows detecting possible anomalies, carrying out calibrations and validating the converter for the installation. The tests can be manual or automatic to adapt to the various test needs, with the chance to create ad hoc protocols or to define new components to be tested.



Air Generation Unit Test Benches

The compressor test bench can run tests on various types of compressors in manual or fully automatic mode.

Special attention has been paid to measurement accuracy and use simplicity for the operator. Compressors are tested inside a soundproof cabin.

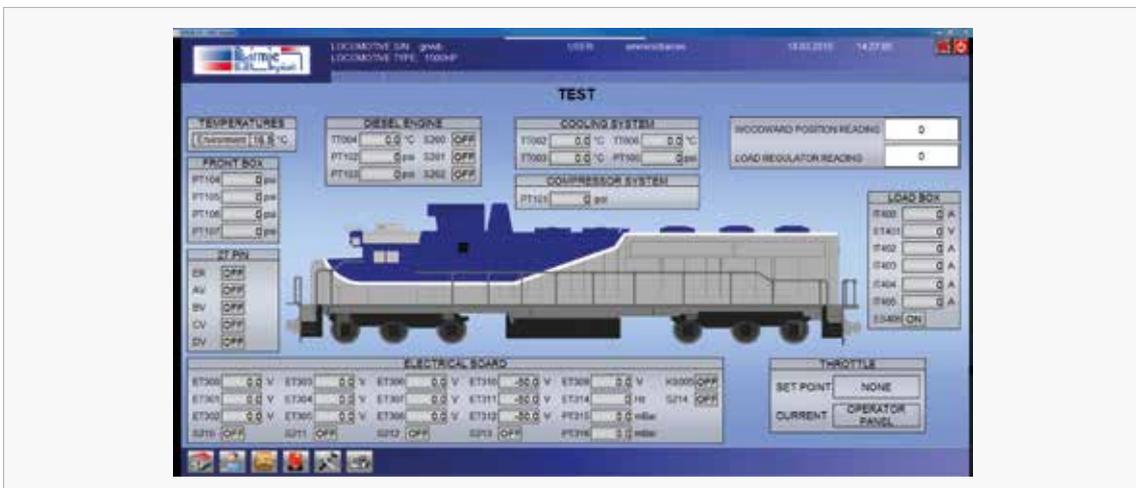
Special trolleys are supplied with the bench, suitable for the transport and support of compressors inside the test cabin.



Generator Load Test Benches

We provide custom solutions for testing loads on generators of any output power.

This application has been developed from the need to test dieselelectric locomotives generators. With the IRMIE solution, the generators are tested without being disassembled from the locomotive.



Pantograph Test Benches

The pantograph test bench enables the automatic measurement of the force applied by the pantograph on the catenary and its stroke. Moreover, it allows to run test cycles following the constructors' disposition.



Dielectric Strength Tester

We realize power supply units for dielectric strength tests both on individual components and on the complete train.

The range of products varies according to the maximum test voltage (5 kV - 7.5 kV - 15 kV - 60 kV - 100 kV) and the output.

Thanks to the use of industrial touch screens, the operator has a simple interface for command and control. Moreover, he has the possibility of registering and archiving the tests.



High Speed Circuit Breaker Tester

We realize power supply units up to 10.000 A for the calibration of the circuit breaker.

The waveform can be programmed in current mode to verify the tripping of the switch in various test conditions.

The tested switches of the auxiliary circuits are powered.

Thanks to the use of industrial touch screens, the operator has a simple interface for command and control and he has the option of registering and archiving the tests as well.





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