## DEM SpA EMC Laboratory



More of thirty years of experience of our technician allow us to develops and find the best solution for EMC problems of our customer.

Our EMC Laboratory study Radio Frequency Interferences and develops Suppression Filters inside the headquarters of DEM SpA in Longarone (BL) -Italy

The laboratory is completely equipped to perform the electromagnetic compatibility test (EMC) according to 2004/108/CE on all appliances that are invested to the European Community norm (big and small household appliances, medical and scientific equipments, electronic boards, portable tools, vending machines, lighting etc).

In respect of the above mentioned directive, has been made obligatory certify and mark all electric and electronic apparatus. The CE marking label certifies that the product conforms the disposition of EC directives.

The CE marking is obligatory and has to be printed by the producer or the importer.

DEM's Laboratory are able to release tests and reports that allow to the producer to mark CE its machine.

Our technical support documentation, project testing, prototyping are guarantee to DEM's customers from starting project to manufactoring feasibility, together with design of specific own technology, tools and machinery to assemble and test.





## **ELECTROMAGNETIC COMPABILITY IS NOT LEFT TO CHANCE!**

## THE RADIOFREQUENCY INTERFERENCES

The radiofrequency interferences are undesirable phenomena of electromagnetic energy, wich are included in the range of frequences generally used for radio transmissions. They are generated both by electrical equipments particulary desigend to produce energy at high frequency (such as microwave ovens, medical and telecomunication apparatus, etc.) and by equipments and machines using electromechanical and electronic switches or motors (such as washers, portable tools, cookers, gas ignitions, heating apparatus, switch-mode power supply, etc.).

Conventionally we define **conducted** the interferences included in a frequency range between 10KHz and 30MHz, and **radiated** the ones included in the range between 30MHz e 1GHz.



*CEI EN61000-3-2/12*: Limit for armonic current emission; *CEI EN61000-3-3/11*: Limitation of Voltage change, Voltage fluctuations and Flicker;

CEI EN61000-4/13: Harmonics and Interarmonics low frequency immunity test;

CEI EN61000-4-8: Power Frequency Magnetic Field Test

CEI EN61000-4-2: Electrostatic Discharge;

CEI EN61000-4-4: Fast Transiet/Burst test;

CEI EN61000-4-5: Surge test;

CEI EN61000-4-6: Conducted Disturbances;

*CEI EN61000-4-11*: Voltage Dips, Short Interrupts and Voltage Variations;

CEI EN61000-4-3: Immunity to Electromagnetic field;

CEI EN55014-1: Emission for supply cable from 30-300 MHz.

For Conducted Interferences we are able to make test complying with CEI EN550 xx (Continuos and discontinuos Disturbance).

Our Laboratory is equipped to perform test human exposure to electromagnetic fields CEI EN 62233.

A Climatic Chamber is avaible to perform life test on electronic components complying with specific procedures.







## **DEM SpA**

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