Battery test chambers

smoke sensors

stabilization system

battery test chamber

special application

The storage of electrical energy has always posed a technological challenge.
Even though there have been significant developments over the past decade, the challenge is still on, with the goalposts being moved continuously by the new needs emerging in various application sectors, such as the necessity for increasingly compact, lightweight batteries for electronic devices and for storing in limited spaces the large quantity of energy required by electric traction. The most recent ideas have come, in fact, from the automobile sector and the research being carried on for the development of electric and hybrid cars, with the aim of reducing CO_2 emissions and recovering braking energy. Among the various solutions identified, lithium batteries have proved to be the most suitable instrument for achieving this aim, even if further experimentation will be necessary to consolidate such a technology.

Test safety
Tests on batteries can generate potentially dangerous situations, since they are carried out by simulating the limit conditions that may occur when there is a transfer of energy from the battery to the electric motor or during the battery's fast recharge phase. These situations, in fact, may generate strong overheating or the formation of dangerous atmospheres.
To handle and solve these problems, our chambers are equipped with all the instruments necessary for monitoring potentially dangerous parameters and the following main devices which are activated to eliminate any risk conditions:
Smoke sensors
Dangerous gas (H_2; O_2; CO; CO_2; …) sensors
Stabilization system
Flame extinguishing system

Electrically Isolated Test Enclosure
An electrically isolated and perforated mounting shelf is also included; the specifically designed perforated shelf ensures both electrical isolation and consistent airflow around the test item.

Complete Software and Control System
The new battery test chamber range from ACS incorporates CAN bus interfacing to the battery ECU as a standard option , the chamber software and control system is also designed to interface with Industry standard loading and unloading systems.

Optional customer defined isolated power and signal connections for external electrical loading of customer test items within the chamber are available.