



## BATTERY PACK TEST BENCH

Simpro has developed a specific **automatic control station** with a view to increasing the quality and efficiency of the production of batteries for electrical energy accumulation. This system can be used for **End-of-Line** production tests of battery packs in order to detect:

- **assembly** defects;
- **BMS communication** faults;
- internal **power switch** faults;
- irregularities in the battery **balancing** circuits/consistency
- **performance** data.

Main features:

- Specifically designed for the battery **production line**.
- Analyses valid also for battery pack **Research & Development** activities.
- The field of application of this system includes all types of battery modules for **electric** and **hybrid** vehicles.

- Ensured increase of **QA efficiency** of the part being produced.
- Complete inspection of the **BMS** system.

**Electrical** available tests:

- **Insulation:**
  - terminal insulation resistance (HV+, HV-);
  - ground isolation
  - Ri (insulation resistance) threshold values are sufficient to avoid hazardous situations for the workers.
- **Power:** measurement of the battery pack internal resistance by examining the voltage after a strong current injection (or discharge) in/from the battery.
- **Voltage:**
  - measurement at the level of HV input/output battery pack terminals.
  - conformity check of the battery pack output voltage compared with the threshold values.

- **VAT:** voltage absence test.
- **Charge / Discharge:** circuit suitability check through a grid regeneration system for the electrical energy harnessed during discharge.

As well as any other system manufactured by Simpro, the supply of this test bench is **turnkey** and includes after-sales service, operators' training, maintenance and prompt intervention in case of need.