



## FULL CRASH TEST LABORATORIES

SABO designs and develops full scale crash test facilities for testing real vehicles for R&D and according to the latest Regulations (UN-ECE, FMVSS, GB, AIS, KMVSS, ADR, NCAP, RCAR, ...).

SABO offers the complete solution, from civil work's assessment to the delivery and commissioning of turn-key projects.

SABO meets the requirements with a full range of solutions.

### MAIN FEATURES

- Modular and customized solution in all components of the facility:  
Propulsion system, Impact Barriers, Guiding and Filming pits,...
- Layout definition and consultancy.
- Design and supply of Auxiliary Subsystems:  
Lighting, Data acquisition, HSV Cameras, Airbag squib units, Speed meter,...
- Car to car impacts at different speeds and angles.
- Laboratories for Electric Vehicles (FMVSS 305 and UN R94, R95).
- Velocity of impact up to 120 km/h (5 tons).
- Filming pits: different configurations.
- Hydraulic disk brake.
- Static and Dynamic Rollover tests.



## VEHICLE GUIDING SYSTEM

- Steel rope based pulling system.
- Low gap guiding rail.
- Controlled hydraulic tensioning station.



## PROPULSION SYSTEM

- AC motor of different powers upon demand.
- Complete integration in SABO's Control System.
- Electronic control by means of a state of the via Drives.



## CONTROL SYSTEM

- Open, flexible and scalable solution: EtherCAT based control.
- Upper layer based on Ethernet : connection to customer network.
- User friendly software integrating all subsystems of the laboratory.

## BARRIERS

- Instrumented Barriers for different tests.
- Mobile barriers according to regulations.
- Sled platforms with PU tubes/BB bars barriers.



## AUXILIARY SUBSYSTEMS

- On board emergency brake system.
- Integration and/or supply of data acquisition systems.
- Trigger devices for HSV cameras, lighting, etc.
- Speed meter device.

