FULL-SCALE CRASH TEST LABORATORIES

Aries designs full-scale crash test laboratories and offers flexible solutions that are specially designed to fit each customer's needs, providing full service from civil works definition to turn-key laboratories.

Aries develops full-scale crash test laboratories to test the complete vehicle structure behaviour and its components in a real crash.

These facilities can be used for R&D purposes as well as to check compliance with international regulations and standards (ECE, EEC, FMVSS, GB, CMVDR, TRIAS, EuroNCAP, C NCAP, J NCAP, etc).

30º car-to-car crash test

SPECIFICATIONS

KEY FEATURES	BENEFITS
Ability to perform various regulated and customized crash tests: Frontal, Rear, Side, Car-to-Car (0º, 15º,...180º), Rollover (FMVSS 208, curb trip, soil trip, slope, corkscrew, etc).	The multifunctional system delivered by Aries provides high performance capabilities as well as upgrade possibilities, anticipating future business needs.
Flexible facility layout design.	Aries personalises each facility's design to the customer's needs and restraints.
Laser tracking system.	Accurate real-time position measurements to provide high speed precision and high impact point accuracy.
Modular sub-systems design (propulsion system, impact barriers, filming pit, deceleration sleds).	Aries's flexible design enables the customer to choose the best solution for their needs. This means enhacing test capabilities and meeting customer restraints while providing state-of-the-art solutions.
Bi-trolley system: A unique Aries design for vehicle towing and releasing.	An accurate and easy to modify release point provides high accuracy while allowing full visibility for crash filming from underneath.

ARIES INGENIERIA Y SISTEMAS, S.A.

TestSystems

Passive Safety

ONE FACILITY, INFINITE SOLUTIONS

Aries provides fully customised facilities to fulfill any existing or future crash testing needs. To provide the best solutions, **Aries** adapts each design to the customer's available land and resources.

PROPULSION SYSTEM

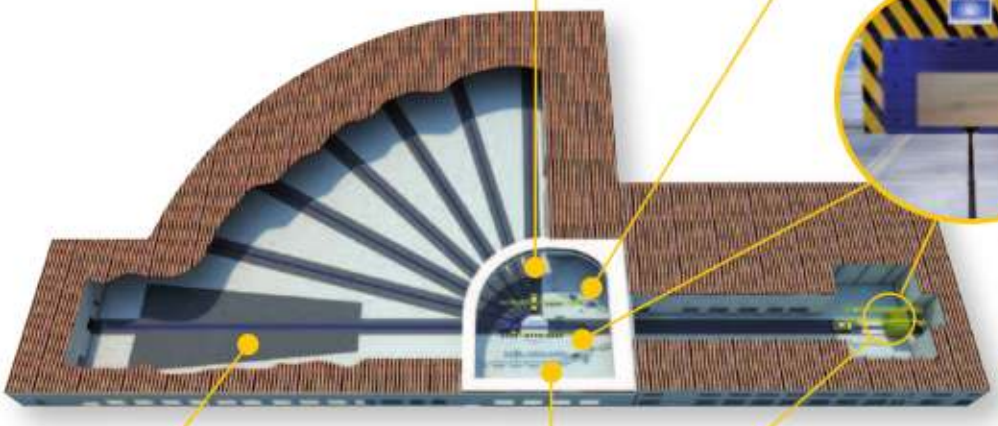
AC motor based system:

- Low maintenance.
- More efficient than DC.
- High accuracy DTC (Direct Torque Control) based system.
- Pre-magnetic function for high torque availability at low speeds.

Alternative hydraulic propulsion to reduce energy consumption.

CAR-TO-CAR IMPACTS

Aries designs facilities to provide the most complex testing services (car-to-car impacts at different speeds and angles).



FIXED AND MOVABLE BARRIERS

Both fixed and movable barriers can be installed on the facility providing test type flexibility in a single area.

ROLLOVER TESTS

All types of rollover tests can be perfomed:

- Dynamic rollover
  - Dolly (FMVSS 208).
  - Curb-trip.
  - Soil-trip.
  - Corkscrew.
  - Slope.

GUIDING & FILMING PITS

Flexible filming pit configurations (guided and rail-free covers) and the unique Aries-designed towing and releasing system (BI-TROLLEY) provide full crash visibility and high impact speed accuracy.

The optimised rail section, together with appropiate camera positions, ensures an optimal view of the crash, even when a fully guided crash test is preferred.

STATIC ROLLOVER

AUXILIARY EQUIPMENT

All crash test facilities require peripheral equipment. ARIES offers a wide range of auxiliary systems to complete any laboratory:

- Auxiliary Test Carts.
- Flying floor.
- Airbag firing units.
- Speed meters.
- Data acquisition systems.
- High-speed cameras.

Aries has also extensive experience providing high performance (LED & HMI) lighting systems.

Crash simulation systems with a sled able to reproduce impact pulses can be supplied independently or integrated in a full crash test facility.

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