



TEST SYSTEMS

ATD CERTIFICATION SYSTEMS

As the automotive industry continues to evolve and innovate, the importance of safety testing and certification has never been greater. Our smart and modular dummy certification laboratory equipment is a cutting-edge solution that allows for more efficient and accurate certification of ATDs.

Decades of experience went into the design of our test systems. By using our own equipment daily in our test laboratory, we ensure high quality standards and continuous improvement.

The certification of an ATD and especially a Next Generation ATD, like THOR or WorldSID requires a number of tests that need to be executed. Due to the smart and compact design of the test systems, all current certification tests can be carried out with a minimum of space needed. The test systems can be utilized as a single standalone system as well as in combination with existing test equipment in a modular set up.

A complete ATD-LabTech dummy laboratory consists of three multifunctional and interconnected test benches: The Flex-Test-System, the Pendulum-Drop-and-Compression-Test-System (PDC) and the Impact-Test-System.

All Test Systems have a industrial computer with a touchpanel, combining the control- and data-acquisition systems in a central unit. The integrated data-acquisition system offers a plug-and play crash-test-dummy certification „powered by mg-sensor“. Analog or digital sensors and complete digital ATDs can be connected via an analog, DTI, DTS or NXT32 interface to the integrated data-acquisition system.

M=BUS-loggers are an optional feature which can be implemented. Included test-data-formats are DIAdem, TDMS, ISO-MME and Excel. The test-analysis and the final test-report can be done desirably with the original ATD-LabTech-Solution, IAT, MeasX or Messring.

Key Features

- » Smart combination of test systems allows minimal foot print and floor space can be reduced
- » Innovative safety concepts
- » Modular system
- » Future-proof handling of coming challenges
- » Covering all ATD certification tests
- » Supporting ISO compliant certification process

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PENDULUM-DROP-AND-COMPRESSION-TEST-SYSTEM

The PDC-Test-System's neck pendulum offers a new adaption system for a quick and easy change of head shapes. Foot impact testing with innovative and easy adjustment. For THOR and Hybrid-III foot impact tests. Automated drop-height positioning for head and rib drop tests, as well as compression tests up to 25 kN for validation of force/moment sensors, Flex-PLI static calibration, multipoint displacement-sensor calibration and many more.



IMPACT-TEST-SYSTEM

High precision impact-testing with maximum comfort. The rope pendulum of the Impact-Test-System with its linear actuator allows an impact-speed of up to 9 m/s (29,5 fps) with a 14 kg (30,9 lbs) probe. The new design allows the operation in rooms with a low ceiling-height of 3,36 m (11 ft). The integrated and automated Test Bench allows easy dummy positioning along four axes. Also available as stand-alone solution.



FLEX-TEST-SYSTEM

The Flex-Test-System combines pelvic and torso flexion tests in a very compact design. It offers a fully automated positioning and test procedure. Due to the fully automated positioning and performance of tests, the chance of possible human errors can be eliminated. A reactive light fence as safety device allows safe operation and provides the utmost liberty of action. Suitable adaptations for all common dummy types complete the flex-test-system.