Cetim's services

DESIGN AND VALIDATION OF POWERTRAINS AND PERIPHERALS FOR ELECTRIC VEHICLES

Mechanical, hybrid and electric powertrains: high speed/high power tests, thermal system tests and development of hydrogen tanks

Your expectations

In order to reduce the CO2 emissions of your vehicles, you need to:

- Validate your mechanical / hybrid / electric power trains or their components
- Design and validate hydrogen storage equipment
- Carry out multiphysical tests to validate the thermal systems of your vehicles

Our solutions

As a legacy testing partner for the automotive sector, Cetim has performed tests on complete power trains or some of their components for more than 15 years. Today, these tests and analyses performed on gearboxes and differentials are completed with tests on high speed gear reducers, rotors, thermal heating systems and, more generally, with multiphysical tests under power electronics load. Our experts also provide their know-how regarding the efficiency measurement and improvement.

Thus, Cetim has contributed to reducing carbon emissions for several years through:

- Its offer of high power / high speed tests (high speed spindle: 250 kW, 20,000 rpm, and adjustable battery simulators up to 250 kW)

48V hybrid gearbox tests
High speed gear reducer tests: bearing / pitting / power axle failure
Gear motor tests

- Its comprehensive support for the design, validation and industrial production of hydrogen storage equipment made of thermoplastic composites, with integration of a “Life Cycle Analysis / Circular Economy” vision

Your benefits

A wide field of action: from electric scooters to helicopters and including cars, buses, trucks, etc.

CONTACT

Question and Answer Service

sqr@cetim.fr **www.cetim.fr**

A player able to carry out all the tests of a drive train.

Your tests are carried out on modular platforms dedicated to testing of electric motors.

More than 15 years of expertise in the development of composite parts.

Reduced validation times thanks to a “simulation / tests correlation” approach.

A dedicated contact person for a whole project.

Burst pits suited to hydrogen tanks and making it possible to validate the latest thermoplastic H2 tanks.

More than 50 years of expertise in mechanical and automotive engineering.

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