VEHICLE CHASSIS DYNO TEST AND CLIMATE CHAMBER

REPSOL Technology Lab

Short Description

Performance evaluation, fuel consumption, emissions and durability in light or commercial vehicles in dyno chassis and climatic chamber

Performance tests on a two-wheel chassis dyno (front or rear traction):

- Homologation cycles (e.g. NEDC or WLTC).
- Representative RDE (Real Driving Emissions) cycles
- Long-term test (component evaluation)

Deliverable

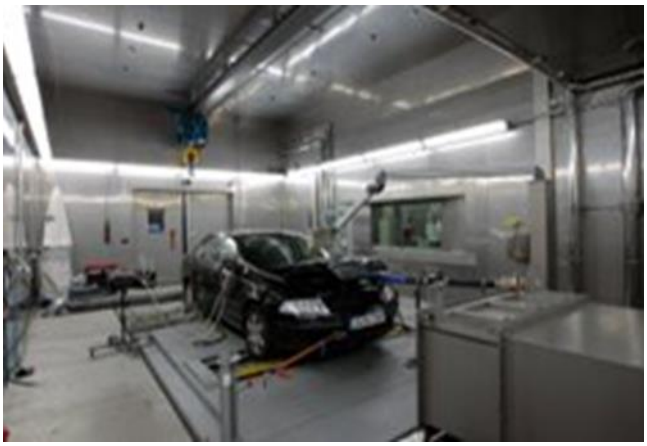
Requested evaluation technical report, including comparison product performance.

Characterization of lubricant or fuel used. (Optional)

Injector Analysis (Optional)

Benefits

- New products performance evaluation (vehicles, components, fuels and / or lubricants) on a chassis dyno to be able to adjust (technically /economically) the product design to comply with the regulations
- Evaluation and quantification of improvements obtained in the development of products, fuels and lubricants



Vehicle chassis dyno and climatic chamber image

Differential Features

- Tailored fuels and lubricants formulation to carry out the tests and their subsequent study. (Optional)
- New and used oils and fuels analysis. (Optional)
- Confidentiality of information related to operations

Vehicle chassis dyno and climatic chamber image

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Requirements

- Objectives and scope definition of the evaluation to be carried out
- Experimental plan proposal
- Product physical samples to be used

Limitations

- Prior to the evaluation, the proposed products and formulations will be analyzed in order to validate the technical feasibility and additional actions necessary for their evaluation on a vehicle chassis dyno. Based on this analysis, the final evaluation proposal will be made to the client

The Product in Depth

Performance evaluation, fuel consumption, gaseous and particulate emissions and durability of vehicles with formulations of fuels and lubricants on a chassis dyno and in a climatic chamber (working temperature range: -18ºC to 50ºC)

Performance tests on an vehicle chassis dyno with two driving wheels (front or rear traction) and power 150 kW. Automation option using a driving robot.

- Homologation cycles (e.g. NEDC or WLTC).
- Representative RDE (Real Driving Emissions) cycles
- Duration Test
- Custom test cycles (to be defined by the customer)

Some Use Cases

- Fuel consumption in vehicles evaluation
- Vehicle emissions evaluation (different regimes of use)
- Lubricating oils durability evaluation
- Evaluation of RDE cycles with different engines (Diesel, Gasoline and LPG)
- Performance evaluation of a prototype LPG vehicle with different AutoGas formulations