



# NVH & DURABILITY TESTING

## FULL-SIZE VEHICLE 4 POSTER AND CLIMATE CHAMBER WITH SOLAR SIMULATION

*Location: Flanders Make - Lommel*

### DESCRIPTION

Vehicles are exposed to a wide variety of road induced loads whilst driving on rough road surfaces, over potholes or when hitting curb stones. These loads have an impact on the lifetime of the vehicle components and often lead to rattling noises within the passenger compartment. In addition, they can also impede driving comfort. Add environmental loads such as climate fluctuations and sunlight to the equation, and the vehicle components age and wear even faster.

We offer a road simulator, integrated in a climate chamber that also includes solar simulation. In this test facility it is possible to combine all these load conditions in an accelerated test programme. By doing so, companies achieve a cost-effective and reproducible results in the shortest possible amount of time. This way of working has become the industry standard for every modern car development programme, where continuous improvement of product quality and at a lower cost is of the essence.



## TECHNICAL SPECIFICATIONS

- Road simulator 4 poster
  - 4 vertical actuators
  - Input signals: sine, sweep, random and time history road load data replication (which can also be recorded at the nearby proving grounds)
  - Vehicle size: from small city car to full size vans with extended wheel base, with a maximum of 5,5t
- Climate chamber
  - Chamber size: 10m x 6m x 7m
  - Temperature range: -40°C to +70°C
  - Temperature ramp rate: +/- 1°C/min
  - Humidity range: 15% RH to 70% RH
- Solar simulation
  - Intensity up to 1150W/m<sup>2</sup>
  - According to DIN75220, incl. UVA & UVB
  - With chamber temperatures between 10°C and 50°C

## OUR OFFER

Using this test infrastructure, we offer:

- Combined road load and environmental simulation testing
- Durability testing
- Squeak & rattle evaluation
- Road comfort testing
- Functional testing in extreme climate conditions
- Road load data acquisition