Mobile NVH Lab — European

Visteon's Mobile NVH Lab is a self-contained, fully-enclosed mobile testing facility that uses non-contact patented laser technology and traditional instrumentation to acquire data quickly and efficiently. The data is then processed and analyzed on-site by Visteon engineers to identify Noise, Vibration and Harshness (NVH) characteristics. The Mobile NVH Lab can be brought to vehicle assembly plants, engineering centers or supplier locations. The Visteon team provides more than just a simple test — they provide solutions.

Applications

- NVH root-cause analysis and troubleshooting for production issues
- Current production auditing for future model target setting
- Prototype validation
- Full-vehicle benchmarking for sound and vibration
- A/B hardware comparison
- CAE model variation

Testing Capabilities

- Full-vehicle resonance band identification
- Powertrain, driveline, wheel and tire system vibration analysis
- Cabin sound analysis
- Mount transmissibility analysis
- Driveline system balancing
- Vehicle performance measurements
- Custom testing to suit customer specific application

Features/Benefits

- Uses patented non-contact laser technology
- Increases the number of vehicles that can be tested and processed in a single day
- Self-contained facility, requires no external resources
- Performs on-site testing anywhere at our customer's convenience
- Provides on-site engineering support
- Requires no modifications to the test vehicle

Visteon Corporation
Test Operations

One Village Center Drive, Building 35
Van Buren Township, MI 48111
Phone: 313-755-4505
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Specifications and Analysis

Specifications

- Four 1219 mm (48") dynamically balanced inertia rolls
- Two Eddy Current absorbers with a 400 kW power rating
- Mechanical link connecting front and rear rolls
- Two torque reaction load cells
- Vehicle cooling system
- Capable of simulating vehicle driveline loads including road grade, vehicle air resistance and inertia
- Maximum test speed 250 km/h

Capable of Testing:

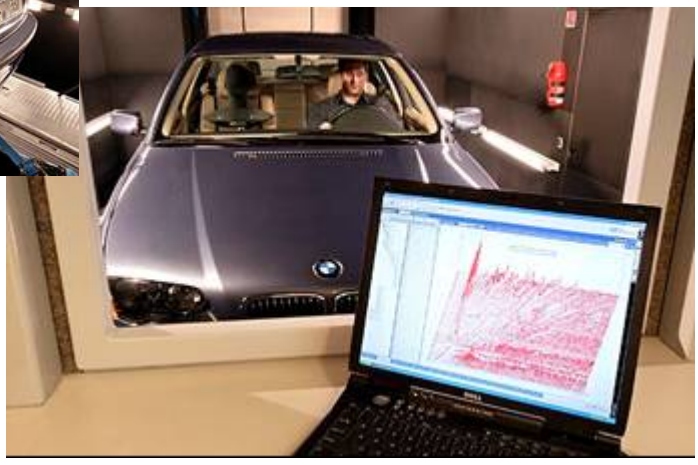
- Two-Wheel Drive (front-wheel drive and rear-wheel drive) — 4x2 applications
- All-Wheel Drive/Four-Wheel Drive (part-time, full-time or on-demand) — 4x2 or 4x4 applications

With dimensions within the following:

Wheelbase	2230 mm - 4070 mm
Max Height	2100 mm
Max Width	2280 mm
Max Length	6100 mm
Max Weight	3500 mm

Analysis

- LMS Test.Lab with 38 channels Scadas III front-end data acquisition
- Standard-optic and rotational laser vibrometers, high temperature accelerometers, microphones, tachometers, thermocouples
- Binaural head sound measurement to simulate human hearing
- Chassis dynamometer data acquisition system measures force and power on the wheels, vehicle speed and acceleration
- Multiple-plane balancing algorithms
- Waterfall plots, color spectral maps, order cut plots, torque/force and power plots available shortly after test completion



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