

Accelerated suspension development and improved NVH performance

Introducing the ANVH 250™



The ANVH 250 is a sophisticated axle-level test machine that accurately measures noise, vibration, and harshness (NVH) transmission through a suspension system into a vehicle body.

It uniquely provides chassis engineers with a rich source of data without the need for a prototype vehicle. The ANVH 250 enables you to:

- / Assess and significantly improve the correlation between simulation models and the characteristics of physical suspension systems
- / Identify inherent design issues so they can be cost-effectively resolved early in the development programme
- / Tune prototype system design in the laboratory to meet both component and system-wide performance parameters



Closed loop control 0-250Hz



Up to 10kN pneumatic pre-load per actuator



4kHz data capture rate



High bandwidth and accuracy piezoelectric load measurement



K&C testing option



Sensor options including lasers and accelerometers



All electric design



Up to 10kN peak force per actuator



Test inputs in X, Y and Z axes



High natural frequency frame in excess of 250Hz



Accommodates a wide range of subassembly types and sizes



Comprehensive range of customisable test input profiles

Configuration

Option	Description
Base system	Frame, primary electrical cabinet, control and data software suite, one pair of vertical 10kN actuators and one pair of stingers
Base sensor kit (Option 1A)	Four pairs of hardpoint force transducers with charge amplifiers
Advanced sensor kit (Option 1B)	A user-selectable package of accelerometer and laser displacement sensors
Horizontal actuators (Option 2A)	One pair of 10kN horizontal actuators with X and Y motor mounts, one pair of stingers and horizontal control module
Additional horizontal actuators (Option 2B)	One pair of 10kN horizontal actuators with a pair of stingers. Pre-requisite: Option 2A
Multi-axis control (Option 2C)*	Includes secondary electrical cabinets and the multi-axis control module. Pre-requisites: Options 2A and 2B
Impact testing (Option 3)*	One pair of high force and displacement vertical actuators and the impact test control module
Vertical K&C (Option 4A)	One pair of dynamic arm spindle centre position measurement systems and the vertical K&C control module
Horizontal K&C (Option 4B)*	The horizontal axle K&C control module. Pre-requisites: Options 2A and 4A

*Under development

Room and Service Requirements

Minimum recommended room size including control room

6.5m x 7m x 4m high

System weight

12 tonnes

Floor requirements

0.15 Mpa

Electrical power supply base system

415 V, 50/60 Hz 3 phase, 200A

Electrical power supply base system

& multi axis control (Option 2C)

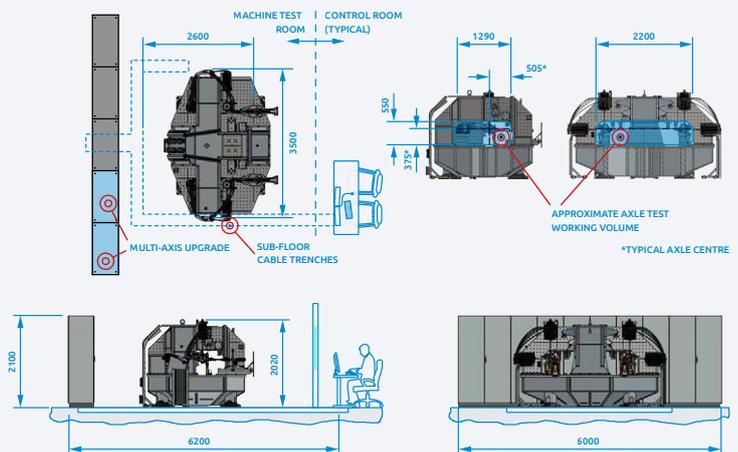
415 V, 50/60 Hz 3 phase, 360 A

Compressed air supply

100 psi (7 bar), dry, oil-free, air 240 litres/min (ANR)

Axle loading requirements

Overhead gantry crane or forklift access



About AB Dynamics

AB Dynamics is a leading global provider of automotive test and verification solutions that facilitate the development of vehicles that are safer, more efficient and sustainable. As part of the AB Dynamics Group of companies we enable customers to develop and test in virtual environments, validate on the track and then evaluate vehicles on public roads.

For more information:

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SP26-02

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