

VIMM – Vehicle Inertia Measuring Machine



Main Application

- Determining the Position of the Center of Gravity and Moments of Inertia of the entire Vehicle or single Components

Technical Data

- total Length: 5730 mm
- Width: 5400 mm
- Height (without crane): approx. 1600 mm

Specimen

- Passenger Vehicles
 - Wheelbase: 1800 mm – 4350 mm
 - Track Width: 1200 mm – 2100 mm
 - Ground Clearance: min. 80 mm
- max. Weight: approx. 2600 kg (depending on the Center of Gravity Height- please contact us for further Information)

Characteristics

- maximum Angle of Inclination:
 - Roll Angle +/- 20 °
 - Pitch Angle +/- 6 °
 - Yaw Angle +/- 6 °
- maximum Measurement frequency for sinusoidal Movements:
 - 0,6 Hz

Measured Values

- Mass of Vehicle
- Center of Gravity
- Moments of Inertia around x-, y-, z-Axis
- Position of Vehicle on Platform

Measurement Devices

- integrated Load Cells
- incremental Angle Sensors

Components of the Test Rig

- Base Frame with hydraulic Actuators
- moving Platform with either:
 - Ramps for Vehicle Measurements
 - Clamping Plate for Components
- Crane with lifting Frame used for Vehicles

Available Supplies

- 230 V- Supply and 400 V three-phase current Supply
- compressed Air
- fresh Water
- Car Lift and Tools