

VEHICLE EVALUATION LAB (VEL)





The Vehicle Evaluation Laboratory (VEL) undertakes Type Approval testing of all types of vehicles ranging from 2 wheeler to heavy vehicles, Agricultural Tractors and Construction Equipment Vehicles, special purpose trailers in accordance with the Rules laid down under Central Motor Vehicles (Amendment) Rules, 1989 and International Standards / Regulations. VEL also undertakes sponsored (developmental) testing for Original Equipment manufacturers/importers

CAPABILITIES

- ⤴ Testing as per CMVR 1989
- ⤴ Fuel efficiency testing of Car/Bus/Truck
- ⤴ PBC measurement as per ASTM E1337 – 90 (Reapproved 2012)
- ⤴ Tyre testing for Mu-Slip Measurement
- ⤴ Evaluation of fuel additives on vehicle performance
- ⤴ Wet Grip testing as per R117 for C1 tyres
- ⤴ Coast by Noise as per R117
- ⤴ Verification and testing of special purpose trailers
- ⤴ Vehicle HVAC Performance



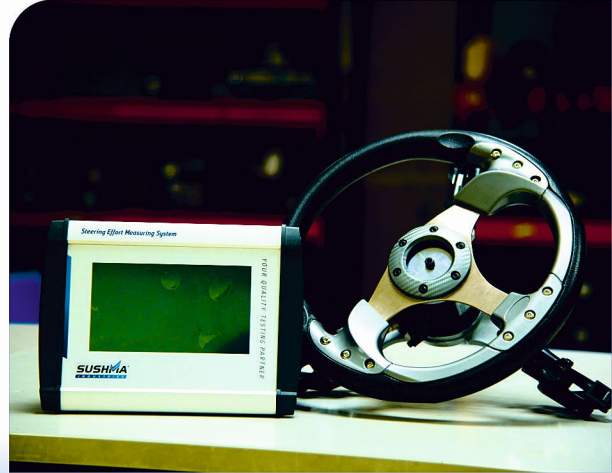
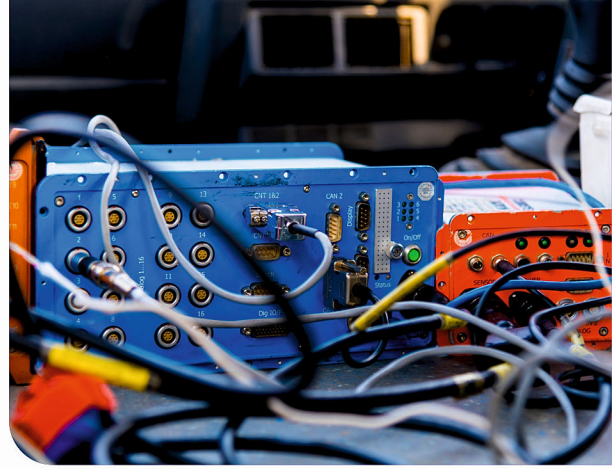
SPECIFIC CAPABILITIES

- ⤴ Testing as per ECE regulations and directives
- ⤴ Durability and endurance testing of vehicles as per customer requirements
- ⤴ Whole body Vibration and Hand –Arm Vibration
- ⤴ Engine Cooling Performance Assessment
- ⤴ Construction equipment vehicles (CEV) noise as per ISO: 6393:2008, ISO 6394:2008, ISO 6395:2008, ISO 6396:2008
- ⤴ Test track testing as per IS 3028:1998
- ⤴ AC Cooling performance assessment
- ⤴ Semi Trailer Brake and ABS testing
- ⤴ Test Track Evaluation for Peak Braking Coefficient(PBC) , Sound Absorption Coefficient



DETAILED FACILITY

- ✦ Data Acquisition System - BUSDAQ, µepc, V-Box
- ✦ Speed Sensor - Optical Sensor L-350, S-350, GPS based speed sensor
- ✦ Steering effort Measurement Systems
- ✦ Sound Measurement Equipment - Bruel & Kjaer, SVANTEK & LMS
- ✦ Weather station
- ✦ Tachometer
- ✦ Pedal and Hand Force Sensor
- ✦ Pressure Sensors
- ✦ Wheel pulse transducer
- ✦ Zero Level surface
- ✦ Manometers
- ✦ Digital height gauge up to 2000mm
- ✦ Digital Torque wrench up to 0 to 1000 Nm
- ✦ Riding gear-PPE (personal protective Equipment) for safety.
- ✦ Weighing Pads (1 ton, 5 ton and 10 ton capacity)



SPECIFIC FACILITIES

- ✦ Tyre Traction Tester
- ✦ Sound Absorption Measurement - Impedance tube
- ✦ Interior Car Noise Measurement
- ✦ Seat Pad & Hand Arm Vibration measurement system
- ✦ Fuel Flow Meter - Kistler & Onosoki
- ✦ RT3000, Gyro scope for Yaw, pitch and roll measurement
- ✦ Coast by Noise Measurement System

KEY PROJECTS

- ✦ Fuel additive Evaluations
- ✦ Benchmarking of OEMs tyres
- ✦ Pass by noise track certification as per IS 3028:1998
- ✦ High altitude test of Agricultural Tractor
- ✦ Peak Braking Coefficient (PBC) measurement of Test Tracks





LAB ACCREDITATION

- ⤴ NABL (ISO 17025:2005)
- ⤴ IMS : (ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007)
- ⤴ VCA(UK)

BENCHMARKING CORRELATION INFORMATION

- ⤴ Fuel consumption benchmarking.
- ⤴ Tyre Benchmarking.
- ⤴ Vehicle performance benchmarking.



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