



VEHICLE TEST CELL (VTC)

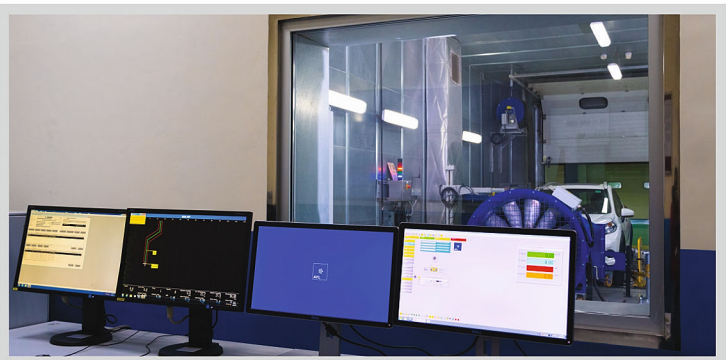




The vehicle test cell at ICAT can do regulatory and development mass emission testing for 2-wheelers, 3-wheelers and 4-wheelers. The capabilities include testing for regulatory requirements as per Indian and International regulations upto BS VI norms. The lab is also capable of conducting Real World Driving emissions using Portable Emission Measurement System (PEMS). The Climatic Vehicle Test Cell (CVTC) can conduct mass emission tests and cold startability / performance tests for passenger vehicles and off-road vehicles at extreme temperatures and solar load.

CAPABILITIES

- ⤴ Automotive BS III to BS VI (2-Wheeler, 3 Wheeler, 4-Wheeler)
- ⤴ Max Speed Test, Electric Consumption test, Power test, Range test for BOV's
- ⤴ Evaporative Emissions Test
- ⤴ Mileage Accumulation
- ⤴ Real World Driving Emission Test
- ⤴ Fuel Consumption Test
- ⤴ Development tests at extreme temperatures and solar load



SPECIFICATIONS OF TEST EQUIPMENTS

CLIMATIC VEHICLE TEST CELL

Mass Emission test at extreme temperatures (-30°C to +55°C) with humidity control and solar loading. Cold startability/Heater performance tests for all types of vehicles including 2W, 3W, 4W and heavy commercial vehicles

VEHICLE TEST CELL-1

150 kW AVL Chassis dynamometer with Pierberg Emission analyzers
Mass Emission tests on 2-Wheeler / 4-Wheeler upto BS VI

NEW VEHICLE TEST CELL-1

150 kW AVL Chassis dynamometer (4 X 4) with Horiba Emission system
Mass Emission tests on 4-Wheeler upto BS VI

SEALED HOUSING FOR EVAPORATIVE DETERMINATIONS (SHED)

Sealed Housing for Evaporative emission development and certification for 2W/4W Gasoline vehicles as per the Indian, ECE, EPA and CARB regulations.
VV/ VT SHED - Variable Temperature, Variable Volume SHED system.
Type: Webber EMI Model 101
VV/VT SHED
Movable roof type SHED

VEHICLE TEST CELL-2

70 kW AVL Chassis dynamometer with Pierberg emission analyzers
Mass Emission tests on 2-Wheeler / 3-Wheeler / 4-Wheeler

NEW VEHICLE TEST CELL-2

150 kW dynamometer (2 x 4) with Horiba Emission System
Mass Emission tests on 4-Wheeler upto BS VI

PORTABLE EMISSION MEASUREMENT SYSTEM (PEMS)

Horiba OBS One capable of conducting mass emission test on road in real world scenario for light duty and heavy duty vehicles. Capable of measuring CO, CO₂, NO_x, THC and PM along with real time GPS data, environmental data and ECU data

MILEAGE ACCUMULATION CHASSIS DYNO - 1, 2 & 3

MACD 1, 2 & 3 with chassis dynamometer of 200 Kw, 160Kw & 55 Kw respectively for running in of vehicles.
Capable of robotic driving on Stahle SAP 2000



STANDARDS/ REGULATIONS (NATION AND INTERNATIONAL)

Testing upto BSVI/Euro VI
Standards

COMPLIANCE

- ▲ NABL
- ▲ IMS
- ▲ TUV- Nord

LAB ACCREDITATION

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

BENCHMARKING CORRELATION INFORMATION

Correlation with the test
labs of major OEMs



Key projects

- ▲ Development Mass Emission tests on 2-wheeler, 3-wheeler, 4-wheeler
- ▲ Fuel consumption tests
- ▲ Cold Start / Heater performance tests on light duty and heavy duty vehicles
- ▲ On road mass emission tests using PEMS



VEHICLE TEST CELL (VTC)

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