



Test Centre

The state-of-the-art HORIBA Test Centre in Oberursel near Frankfurt am Main, Germany, is equipped with the latest measurement and testing technology. Qualified personnel with long-standing application know-how conduct complex test runs independently or - if requested - in conjunction with the customers. The Test Centre also serves as an in-house development tool and enables research as well as verification of the very latest HORIBA systems.

Applications

The comprehensive portfolio of measuring technologies enables a wide range of emissions testing compliant with international legislation as well as substantial R&D, homologation and application work.

Benefits

- State-of-the-art technologies for highly accurate and repeatable testing and measurement
- High degree of flexibility in contract testing and development partnerships
- Experienced professional team dedicated to the test centre
- Direct access to HORIBA's product expertise
- Guaranteed confidentiality of customer data



Target Groups

- International OEMs and automotive suppliers
- Development partners, research institutions and universities



Test Facilities at a Glance

Chassis Test Cell

The new HORIBA 4WD Vulcan Chassis Dynamometer with MEXA-ONE emission measurement technology and VETS ONE Automation allows emission measurement of passenger cars, hybrid cars and light-duty vehicles. Testing is carried out in accordance with all international standards. A newly constructed soak room provides space for up to six vehicles.



E-Motor Test Cell

Particularly important is HORIBA's TITAN E-Drive test cell for the development of E-Motors and alternative automotive drive lines. It is equipped with a high speed DYNAS₃ HS 180 Asynchronous machine, which allows a high starting torque and is capable of very high speeds of up to 16,000 rpm. An integrated DC power supply system provides voltages up to 950 V. The test centre in Oberursel thus offers testing opportunities for conventional and alternative powertrains.

Engine Test Cell

The HORIBA TITAN engine test stand is equipped with a DYNAS₃ HD 350 Asynchronous machine, which delivers up to 350 kW and is capable of engine speeds up to 9,000 rpm. The MEXA-7100 FX for raw gas exhaust emissions stands out with its extremely fast response. In combination with a HORIBA MDLT 1300 Micro Dilution Tunnel, the highly accurate measurement of particulate mass is also possible. The highly dynamic FQ-2100DP fuel flow meter allows precise measurement of fuel consumption with fuel temperature conditioning.



4WD 48" VULCAN second generation Chassis Dynamometer with four-wheel drive



VETS ONE Automation System with hybrid function
MEXA-ONE Motor Exhaust Gas Analyzers for raw and diluted measurements



Measurement Systems

- HORIBA MEXA-ONE-D1-EGR for raw sampling
- HORIBA MEXA-ONE-C2-OV for diluted modal and bag measurement (2-Lines)
- HORIBA CVS-ONE, Constant Volume Sampler
- HORIBA 2100 SPCS Particle Counter
- HORIBA MEXA-6000FT (FTIR)
- Hioki 3390 Poweranalyzer with interface to the VETS ONE Automation

Options

- Direct connection to the Vehicle OBD interface
- Integrated logging of the OBD data
- All results are displayed in a single Excel results file

Features

- HORIBA DYNAS₃ HS 180 Asynchronous machine, rated power 178 kW, speed 16,000 rpm, torques up to 1,000 Nm 950 V DC power supply
- HORIBA SPARC Powertrain Controller
- HORIBA STARS Automation System including E-Motor applications
- HORIBA AC Box for automated short circuit and idling tests

Measurement Systems

- YOKOGAWA* WT3000 Power Analyzer

* YOKOGAWA is a registered trademark of Yokogawa Electric Corporation.

Features

- HORIBA TITAN engine test stand
- HORIBA DYNAS₃ HD 350, rated power 350 kW, speed 9,000 rpm, torques up to 1,000 Nm
- HORIBA STARS Automation including STARS Calibrate for ECU calibration and road load simulation (RLS)

Measurement Systems

- HORIBA FQ-2100DP Fuel Flow Meter
- HORIBA MEXA-7100 FX for raw sampling of gaseous components in the exhaust gas
- HORIBA MDLT 1300 Micro Dilution Tunnel with DLS 2300 Flow Controller

Automation

The chassis dynamometer employs the HORIBA VETS ONE Automation System for the efficient preparation, execution and evaluation of emission tests for all current regulations.

The engine test cell and E-Motor test cell utilizes the HORIBA STARS Automation System. As a development tool STARS offers the flexibility required when creating test programs as well as connection of devices, collecting and managing data. Both of HORIBA's Automation Systems deployed at the test centre ensure the acquisition and documentation of repeatable results.

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*HORIBA continues contributing
to the preservation of the global
environment through analysis
and measuring technology.*



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