

TESTING SERVICES

Outsource your testing to our experienced professionals



EMISSIONS



ELECTRIFICATION



CAV



DATA

HORIBA
Automotive



COMPREHENSIVE SOLUTIONS

Never before in the history of the automotive industry have manufacturers been asked to do so much with the same amount of money, and in shorter time frames. Because of that, test efficiency is at an absolute premium. We are here to help manufacturers and developers as they look to partner with, or outsource to, industry experts. Our reputation for collaboration and problem-solving makes us an excellent partner for complex testing challenges.

By combining the services offered at our regional test center with our global network, HORIBA offers access to comprehensive engineering services and a complete range of chassis, powertrain, e-machine, battery, and engine test facilities for light-duty and heavy-duty applications.

TESTING CENTER IN TROY, MICHIGAN



Our 45,000 sq ft regional test facility offers a range of powertrain, e-motor, brake, and structural testing services. Test set-ups are fully customizable and range from small component, to full size on- and off-highway vehicles. A complement of road and environment simulation options are also available. All tests are performed using high-response HORIBA dynamometers and are operated by experienced, results-driven contract testing engineers.

A FULL RANGE OF DYNAMOMETER CAPABILITIES

Our facility has 14 driveline test cells to test components, to full vehicle/powertrains, using high-voltage infrastructure, battery emulators, universal inverters, and HEV cooling system options. Our team of experts comply with both customer and industry standards and collaborate until all goals have been met. We work in three shifts (the third is fully automated) to deliver your project accurately and on time. Even short schedules and specialized requirements can be accommodated when necessary.

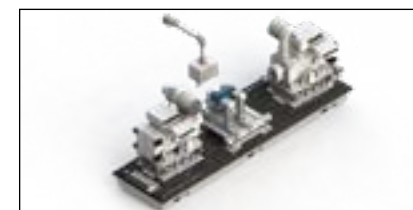
Application Overview



1E Test Cell

E-motor or dynamometer driven

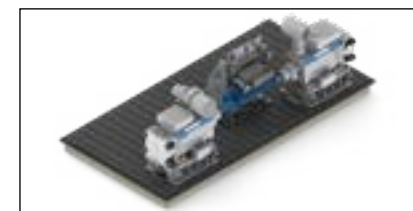
Designed to test e-motors, front end accessory drives, and other "spinning" components.



2E Test Cell

E-motor or dynamometer driven

Designed to test electric drive units (EDUs), e-axles, axles, transmissions, and prop shafts



3E Test Cell

Dynamometer driven

Designed to test rear drive units (RDUs), differentials, gearboxes, and transmissions



4E Test Cell

E-motor or dynamometer driven

Designed to test electric vehicles and all-wheel drive electric powertrains



5E Test Cell

Dynamometer driven

Designed to test all wheel drive powertrains

Dynamometer testing types

- E-motor (environmental and system)
- Transmission
- Axle and RDM (T-rig)
- NVH Brake
- Accelerated fatigue testing
- Full vehicle/powertrain
- Brake

BRAKE DYNAMOMETER TESTING

Our GIANT EVO NVH brake dynamometer provides inertia from 5 - 200 kgm² and allows brake torque of 0 - 5,500 Nm at 2,200 rpm maximum test speed, covering a wide-range of tests for passenger vehicle applications. Designed to conduct NVH measurements, a noise measurement system is equipped to perform in-depth measurements of the brake systems (ex. SAE J2521). Additionally, performance testing can also be executed (ex. SAE



J2522) with brake torque and temperature measurements to quantify the loads the brake system is experiencing. A climatic system and insulated test chamber are equipped to perform climatic simulation, ranging from -40°C to +50°C and at 5 to 90% relative humidity. Customer specific test scripting and reporting are standard services that can be provided.

LEVERAGING OUR GLOBAL NETWORK

To better serve our customers, HORIBA Automotive has test facilities around the globe including in the US, the UK, Germany, China, and Japan. HORIBA MIRA, a specialized team within HORIBA Automotive, provides pioneering engineering, research and test services with 75 years of experience developing some of the world's most iconic vehicles. We help customers safely develop, integrate, and optimize electrified technologies. Specialized services include functional safety expertise (ISO 26262), NVH testing and thermal management.



HORIBA Automotive, a business segment within the HORIBA Group, provides advanced mobility leadership and comprehensive engineering and measurement expertise to support the gradual shift from traditional propulsion, to fully electrified solutions.

horiba.com/automotive

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