

ELECTRIC AND HYBRID POWERTRAIN TESTING

Intertek Transportation Technologies

Combining our knowledge of driveline test and development with our expertise in Electric and Hybrid propulsion systems has allowed Intertek to develop an enviable portfolio of test expertise in alternative powertrain test and development.



Our background

Intertek is an industry leader with more than 43,000 employees in 1,000 locations in over 100 countries. We deliver Total Quality Assurance expertise 24 hours a day, 7 days a week with our industry-winning processes and customer-centric culture. Whether your business is local or global, we can help to ensure that your products meet quality, health, environmental, safety, and social accountability standards for virtually any market around the world. We hold extensive global accreditations, recognitions, and agreements, and our knowledge of and expertise in overcoming regulatory, market, and supply chain hurdles is unrivalled.

Intertek Transportation Technologies based in Milton Keynes, UK, has more than 30 years' experience in dynamometer-based powertrain development testing. This powertrain testing expertise has been extended over the last 5 years to include the test and optimisation of eMobility driveline systems including full Electric and Hybrid Electric Powertrains.

Combining our knowledge of driveline test and development with our expertise in Electric and Hybrid propulsion systems has

KEY FEATURES

Engine R&D testing

- EV Traction motor testing
- REG85 Power Certification
- Charging System testing
- HIL testing
- Multiple channel high frequency data logging
- Power electronics expertise
- 6 hybrid powertrain test cells
- 4 EV systems test cells

allowed Intertek to develop an enviable portfolio of test expertise in alternative powertrain test and development.

Our highly configurable test cells can be fitted with multiple dynamometers and battery simulation to provide twin axle testing capability of the most complex powertrain systems.

Intertek has developed specialised eMachine test rigs capable of testing the latest high-speed machines, supported by high power, high voltage DC supplies.

6 of Intertek's 32 award-winning test cells are upgraded to the highest specification in order to support EV and Hybrid driveline testing.

FOR MORE INFORMATION



+44 1908 513000



Tanners Drive, Blakelands,
Milton Keynes, MK14 5BN



danielle.walmsley@intertek.com



[intertek.com/automotive/
miltonkeynes](https://www.intertek.com/automotive/miltonkeynes)



24/7
TESTING CAPABILITIES

32
AWARD WINNING
TEST CELLS



Latest generation automation and control systems to test all automotive power electronics and driveline systems

Intertek's laboratory facilities are supported by comprehensive in-house instrumentation and facilities maintenance, ensuring minimum downtime with maximum data quality.

Multiple acquisition channels of high speed data acquisition can be specified at sample frequencies of up to 200 MHz.

Our on-site fabrication and rig build capabilities allow rapid configuration and test specification changes and updates as well as bespoke rig or test customisation options.

All of Intertek's eMobility testing engineers and technicians have been trained to the latest health & safety legislative requirements to allow them to operate the high voltage test equipment and test components.

Customer engineers can be accommodated on-site in either communal or private customer offices.

All of our test facilities are fully accredited to ISO 9001 and can operate 24/7.

ECE Regulation 85 (Engine Power) certification for e-motors can be conducted in our test cells. Intertek is the first UK test facility to be accredited by the VCA to conduct this testing.

Key features

- Intermodule serial communication expertise in CAN / FLEXRAY and Automotive Ethernet
- Hardware-In-Loop (HIL) test and controls development experts
- Battery Simulators
 - 4 x 150 kW 1000V modules
 - Modular system 5 x 32kW 500V modules
- Two traction motor dynamometer rigs
 - Max. speed = 20000 rpm (bi-directional)
 - 400 kW Peak / 300 kW cont. Power
 - +/- 750 Nm peak / 550 Nm cont. Torque
 - Dual temperature controlled oil and water cooling systems on each rig
- Worldwide standard charging component rig tests
 - DC:DC / AC:AC
 - 1PH/JP/DC
- EV / HEV Driveline Test
 - 6000 Nm E/C dynos
 - 4000 Nm A/C transient dynos
 - Configurable battery simulator options
- One climatic BISG machine test cell
 - 110 kW motoring dyno
 - 64kW 500V battery simulator

- One HV EV electronic systems test cell
 - DC/DC converter tests
 - On-board charger tests
 - Fault injection
 - CAN and Flexray communications
- Customer drivecycles or bespoke dynamic tests available
- Full suite of electrical testing equipment available

To find an office or laboratory in a particular country, please visit intertek.com/contact



FOR MORE INFORMATION

- ☎ +44 1908 513000
- 📍 Tanners Drive, Blakelands, Milton Keynes, MK14 5BN
- ✉ danielle.walmsley@intertek.com
- 🌐 intertek.com/automotive/miltonkeynes