

# INTERTEK MILTON KEYNES FACILITIES OVERVIEW

## Intertek Transportation Technologies

Intertek Transportation
Technologies based in Milton
Keynes, UK has over 30 years'
experience in dynamometerbased engine performance,
emissions and driveline
development as well as specific
expertise in fuels and lubricant
testing and exhaust aftertreatment ageing.



#### 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 over 30 years' experience in dynamometer-based engine performance, emissions and driveline development as well as specific expertise in fuels and lubricant testing and exhaust aftertreatment ageing.

Expertise of diesel & gasoline engines as well as fired engine HEV and EV drivelines using industry leading instrumentation, analysis techniques, data acquisition and post processing tools.

## OUR SERVICES

Engine R&D testing

- EMS Mapping
- Engine Durability testing
- Transmission testing
- EV Traction testing
- Exhaust Catalyst Ageing
- Fuel Additive testing
- PEMS RDE testing

Our 32 award-winning test cell laboratory is recognised by the Vehicle Certification Agency (VCA) and trusted by many of the world's leading vehicle manufacturers to deliver quality data and test hours with minimum down-time. Recent major investments mean our laboratory facility now offers some of the best commercially available research and development test cells in the UK.

Our Milton Keynes laboratory is a 24/7 operation which means that engine maintenance, hardware changes, instrumentation calibration and servicing can be performed at any time, maximising cell availability for customer work.

Intertek's catalyst ageing experience is complemented by a full exhaust and catalyst system prototype manufacturing capability, with capacity to produce hundreds of parts as well as bespoke systems.

#### FOR MORE INFORMATION



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Our Milton Keynes laboratory is a 24/7 operation which means that engine maintenance, hardware changes, instrumentation calibration and servicing can be performed at any time, maximising cell availability for customer work.

In addition to the laboratory-based testing, Intertek can conduct on-road emissions testing using PEMS test equipment as well as fully managing vehicle fleet trials from our dedicated workshop facilities.

Access to Intertek's Global Laboratory Network covering battery and EV system testing, materials testing, oil and fuel sample analysis, interior and trim testing, EMC testing and whole vehicle mileage accumulation and fleet trial management amongst many other complimentary testing and business assurance services.

The newest test cells are specified to handle engines of up to 1000 kW whilst providing high precision fuel, air and fluid conditioning systems for unrivalled consistency and highly repeatable testing. Intertek stocks more than 60 dynamometers with capacities from 50 to 1 000 kW including transient A/C machines to suit specific customer needs. Test efficiency is maximised by provision of 24/7 automated mapping techniques using AVL CAMEO software.



Fuel and lubricant testing is conducted to industry standard techniques and our facilities are recognised by both the CEC and the ATC ERC. Bespoke test cycles and full transient testing of lubricants and fuel can also be conducted in our test cells. All of our CEC fuel and lubricant test cells are covered by ISO 17025 accreditation.

All of our development test cells are recognised by the VCA for European Type Approval engine certification testing (to ECE Regulation 85), so unnecessary engine movements can be avoided.

To accompany this vast experience of powertrain development, we offer prototype manufacturing capability of parts and ancillaries and our laboratory facilities offer full instrumentation capabilities to support dynamometer based testing here on-site, or for vehicle based testing outside of our facilities.

We ensure that our customers are well catered for on site with a range of customer offices and amenities including full WiFi access at all test cells and remote offsite access to the test cells.

All of our test facilities are also fully accredited to ISO 9001.

#### **Key Features**

- Fired Engine Durability and Development
  - o Engines up to 1000 kW
  - o Engine weights up to 2000 kg
  - o Diesel, gasoline, HEV and EV drivelines
  - o High speed, high torque applications
  - o Transient and steady state capabilities
  - Radio-Nuclide Testing
- EV Systems Testing
  - Two EV Traction Motor dynamometer rigs to 400kW, 20,000rpm
  - Two 2WD (2e) EV axle module test cells to 450kW
  - HV BISG dynamometer rig to 55kW with climatic chamber
  - On-board AC and DC charger systems test bench
  - Multiple fluid conditioning rigs
- Hybrid Powertrain Testing
  - Six multi-fuel hybrid powertrain test cells up to 900kW
  - Multiple Battery Simulators up to 1000V
  - o WLTP drive cycle emissions testing
  - o RDE drive cycle emissions testing
  - High-load & track duty cycle testing

- Hybrid Transmissions Testing
  - o Two 3e Hybrid transmission test rigs
  - o Input motors up to 570kW 10,000rpm
  - Twin load motors up to 500kW, 4000Nm (each)
  - o HV Battery Simulators up to 1000V
- Fuel, Additive and Lubricants Testing
  - CEC Working Group member organisation
  - Industry leading test to test repeatability
  - Unparalleled test cell uptime for maximum test efficiency
  - Engine strip and build
  - Base fuel supply, preparation and storage
  - Highly trained component rating team to ASTM and CEC standards
  - Photographic studio to support post test analysis
- Exhaust Catalyst Ageing
  - Full exhaust system preparation and instrumentation
  - Gasoline & diesel catalyst ageing, including oxidation catalysts, DPF systems and SCR systems
  - o Thermal or chemical ageing cycles
  - Full test bench control of AFR, ECM and test bed parameters
  - Prototype catalyst & exhaust system manufacture
  - Catalyst re-canning

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







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