

AKKA

PASSION FOR
TECHNOLOGIES



TEST FACILITIES FOR POWER-TRAIN DEVELOPMENT

ONE-STOP TEST FACILITIES – FROM DESIGN TO OPERATION

The increasing technical complexity necessary for improved exhaust gas values and lower fuel consumption together with the desire for increased performance and high driving comfort illustrate the necessity of carrying out a realistic test of single components, part, or complete systems. AKKA accompanies its customers as a competent development partner for this task with the latest test bench technology. We help you realize your developmental tasks quickly, efficiently, and to the highest standards of quality.

Apart from providing and operating test benches we support our customers in designing R&D centers and testing fields or facilities. Regardless of whether in Europe, Asia, or America, our experts develop custom-made solutions for and with our customers. And we accompany them during this process wherever required, starting with preparing a feasibility study to setting up operations.

TEST FACILITIES

- Road-to-Rig test bench
- Engines – single-cylinder to multi-cylinder engines, passenger vehicles, commercial vehicles
- Transmission test benches
- Exhaust gas turbocharger test benches
- Powertrain test benches
- Radionuclide laboratory
- EMC test center – from components to 104-t mobile crane

OUR ADDED VALUE

- One-stop engineering and test facilities
- Comprehensive test bench portfolio
- Experience in operating more than 50 test benches
- High safety standards
- Latest measuring technologies
- Highly qualified and motivated employees
- Strong cooperation partners
- Your test facility planning and project on partner



Automotive



Aerospace



Railway



Energy



Life Sciences



Telecoms



Space



Services and Informations Systems



Defence



Oil and Gas



Consulting



EXAMPLE OF A SUBHEADING

In addition, the following test facilities are available to you, including single-cylinder and fuel-injection hydraulic test benches, thermal chambers, acoustic test benches, etc. The majority of the named test benches are AKKA facilities, and their operation is customer specific. Additional test benches are project-dependent and are integrated and used to some extent in long-term cooperations.



RADIONUCLIDE LABORATORY

- Determination of oil consumption using the multi-cylinder engine
- Component oil consumption at component test bench or single-cylinder test bench
- Measurement on engines with a short lifespan

TRANSMISSION TEST BENCHES

- Drive system with e-machine with max. 15 kW and 6,000 1/min
- Functional test of front, transverse, (F-DCT) and rear end longitudinal vehicle transmission systems

OUR TEST FACILITIES

ROAD-TO-RIG TEST BENCH

- Two load machines per axle
- Highest dynamics
- Climate tests
- E/E measurements
- Battery simulation and testing (climatized)

ENGINE TEST BENCHES

- Passenger vehicle or commercial vehicle engines (single-cylinder to multi-cylinder engines)
- Combustion and hybrid engines
- Thermodynamics and endurance tests
- All fuel types (Otto, diesel, gas, special fuels)

EXHAUST GAS TURBOCHARGER TEST BENCHES

- Mass flow 0.032 - 0.8 kg/s (115 - 2,880 kg/h)
- Pressure 1 - 7 bar (rel.)
- Temperature 302 - 2,012 °F
- Burner performance 20 - 800 kW (thermal performance)

POWERTRAIN TEST BENCHES

- 1- and 2-axle test benches
- Driven by combustion engine or e-machine
- Rated capacity per wheeled machine 200 kW
- High-voltage battery simulation

EXHAUST GAS ROLLER TEST BENCHES

- 4WD roller, 2WD roller
- Mobile robots
- Crude gas line
- EU5/EU6 exhaust gas measuring technology
- Partly climatized up to -4 °F

EMC TEST BENCHES

- Complete vehicle (also commercial vehicles) and components
- Frequency range up to 4.2 GHz
- Amplifier performance up to 10 kW
- Field strength up to > 200 V/m possible
- Interference transmission 20 Hz–26 GHz