

Development, testing, and validation from a single source

Bosch Engineering

Testing services



BOSCH
Invented for life

Scalable, efficient, and customized testing

EQUIPPED FOR THE FUTURE

As the legal requirements for increasing safety and reducing emissions continue to evolve, the increasing connectivity and automation of vehicles presents its own set of challenges. For modern powertrain concepts, this means time-consuming and expensive development processes, which have to comply with all the laws that apply around the world and also take into account extreme climatic conditions. When it comes to testing individual components, whole powertrain systems, or complete vehicles, Bosch Engineering is the expert partner at your side. With our testing services, you benefit not only from the latest testing technology, but also from our comprehensive know-how in vehicle development and our many years of experience in conducting and evaluating measurements.

ONE TEST CENTER – ALL POSSIBILITIES

From motorcycles to super sports cars to commercial vehicles – we offer a wide range of testing facilities and services for your development and testing needs. On our test benches, we examine exhaust-gas emissions and conduct performance, function, and long-term tests under extreme conditions. During these tests, the temperature ranges from –35 °C to +40 °C, with speeds reaching up to 310 km/h. Engine test benches make it possible to test the engine's electrical and mechanical properties, as well as its temperature behavior and overload operation at a very early stage of development. A sophisticated engine quick-change system ensures that testing times are optimized for efficient testing. We also offer various component and system test benches that help streamline the development of your products. A hydraulic test bench, a hot-gas test bench, and one for electrical powertrains define new and innovative areas.

CUSTOM TESTING SERVICES

We support you with our know-how throughout the entire development cycle. The scope of our consulting and implementation services is tailored to your unique requirements regarding test design, vehicle preparation, and the testing of individual or multiple components. In close cooperation and coordination with the relevant department, we can assume responsibility for overall project support upon request. You will not only receive highly accurate and reliable measurement results, but will also benefit from our comprehensive know-how for evaluating and interpreting the data as well as for implementing the findings in your project development. As a trusted partner for EU type approval, we are happy to assist you in obtaining authorization for your vehicles and engines. Our services in this area range from consulting on the applicable legal requirements to carrying out complete OBD and emissions certifications.

INFRASTRUCTURE AND EQUIPMENT

Our test center is equipped with cutting-edge measuring technology. It has its own filling station, which also guarantees a supply of special fuel, while the two test tracks – one on the premises and one nearby – offer outstanding conditions for testing vehicles and systems. In the assembly shop, our associates ensure smooth processing and handle the preparation for the measurements themselves. Eight cold sectors for conditioning the vehicles stand at the ready in the cold testing area. In addition, secure assembly shops are available for use as external workshops, each with its own entrance. Your testing options are virtually unlimited – and it goes without saying that the prototypes in your projects remain protected.

Benefits of our testing services and test benches

2-wheelers to trucks efficient testing

and their components can be put through a wide range of tests on our test benches.

is facilitated by optimizing time spent on the test benches and ensures cost effectiveness.

individually scalable

The scope of tests for individual components or entire vehicles can be adjusted as needed.

custom service

Associates are on hand to provide a flexible range of services every step of the way, from designing the test to evaluating the results.

shorter development times

Reproducible results serve to accelerate the development process.

THE BENEFITS OF CHOOSING BOSCH ENGINEERING

- ▶ Various testing options to optimize vehicles and their components
- ▶ Determination of emissions behavior with respect to all globally valid regulations
- ▶ Reliable test results through the use of the latest measuring technology
- ▶ Fast conclusions thanks to the use of highly accurate and individually prepared measurement results
- ▶ Ease of depicting statutory and custom driving cycles
- ▶ Comprehensive infrastructure that enables a wide range of testing services



Overview of the test center

- 1 Performance test bench
- 2 Dynamic hot-gas test bench
- 3 Test track
- 4 Portable emission measurement system (PEMS)
- 5 Engine test benches
- 6 Emissions test bench
- 7 Climatic emissions test bench
- 8 Hydraulic test bench for injection systems and components
- 9 Electric motor test bench
- 10 Workshop/assembly shop/measuring area
- 11 Third party assembly shops
- 12 Filling station

Services tailored to your tests



ALWAYS ON HAND WITH REGIONAL MARKET KNOWLEDGE

Global presence We operate wherever you need support. Thanks to our global presence, we are familiar with the specific requirements of the various markets and their legislation. This puts us in a position to develop test concepts and solutions suited to the particular local characteristics.



COMPLEX RELATIONSHIPS FOR MAXIMUM SYSTEMS BENEFIT

Systems and connectivity expertise For over 100 years, we have been proving our expertise in a wide range of vehicle technology topics, and have mastered the complexity of networking individual systems together. With reliable measurement results, plus evaluation and qualified interpretation of those results, we offer the foundation for optimum solutions that match each company's individual requirements.



A STRONG PARTNER THROUGHOUT THE PROJECT AND BEYOND

Long-term partnerships Custom solutions are possible only when both sides collaborate closely. We not only provide precise measurement results, but we support you with our many years of experience in evaluating those results. Our project teams stand ready to provide optimization solutions with an eye to refining and improving our customers' products.



FROM INITIAL STUDIES TO PRODUCTION IN ALL VEHICLE SEGMENTS

Comprehensive portfolio and extensive expertise Our personal support is geared towards the individual needs of our customers. When developing individual components, testing vehicles, or obtaining certification on our test benches – we are the reliable partner at your side.



HIGHEST QUALITY FOR HIGHEST REQUESTS

Quality and reliability A highly qualified team and excellent project management set us apart from the competition. In every test, our customers benefit from our many years of experience in taking measurements and analyzing the results. Because we use the latest measuring technology and maintain and calibrate our test benches regularly, we can supply you with highly accurate and reliable test results.



EXPERT ANSWERS TO INDIVIDUAL CHALLENGES

Innovation driver and technology leader Our strong commitment to research and development secures our position as a leader in vehicle technology. It also means we are equipped to develop new measurement procedures and simulations, so that we can support our customers in the early phases of developing their vehicles and components.