TEST BENCHES & SYSTEMS
We are one of Europe’s leading system suppliers and offer our customers complete high-end solutions from a single source. When it comes to test bench technology, we offer integrated solutions incorporating automated test benches and systems. Our main focus is on test applications for components, assemblies and systems.

Our customers operate primarily in the hydraulics, automotive and aviation sectors. They appreciate our adherence to high international standards regarding quality, reliability and sustainability.

For Hainzl, our claim “technology for higher standards”, in practice, means highly qualified consultation, interdisciplinary engineering and competent product management. Our services are rounded off by first class manufacturing, assembly and service capabilities.
COMPLETE SYSTEMS

We are able to realise complex test applications, from individual standalone special test benches for R&D applications, to fully integrated and automated end-of-line test systems in series production. We support our customers in meeting the ever increasing, and ever more complex, demands made of their products.

With our smart and networked automated solutions, we are helping our customers to raise productivity and plant availability. We also provide assistance in formulating and developing test and measuring concepts.

Test benches & systems for hydraulic components
- Hydraulic valves
- Hydraulic pumps and motors
- Hydraulic cylinders
- Filter systems
- Heat exchangers
- and much more

Test benches & systems for automotive components
- Water pumps
- Cooling systems
- Damping systems
- Gearboxes
- Generators
- Mechatronic actuators
- and much more

Optimum system solutions
Individual and customized test system design. The optimum solution for each customer is assured through joint design reviews.

Optimum communication
A technical expert accompanies the entire life cycle acting as a central contact.

Central system responsibility
Complete systems are designed, engineered and manufactured in house.

Extensive technical competences
Internal Competence Centres provide support for the following areas: mechatronics, mechanical engineering, fluid technology, automation technology and condition monitoring.

Individual & competent
Wide ranging expertise, gained over decades of involvement, specifically with regard to hydraulic and automotive test benches.

Optimum system solutions
Individual and customized test system design. The optimum solution for each customer is assured through joint design reviews.

Optimum communication
A technical expert accompanies the entire life cycle acting as a central contact.

Central system responsibility
Complete systems are designed, engineered and manufactured in house.

Extensive technical competences
Internal Competence Centres provide support for the following areas: mechatronics, mechanical engineering, fluid technology, automation technology and condition monitoring.

Individual & competent
Wide ranging expertise, gained over decades of involvement, specifically with regard to hydraulic and automotive test benches.
INDIVIDUAL & VERSATILE

In the R&D sector, we see it as our task to develop innovative solutions tailored to the needs of our customers, while taking advantage of technology that meets the highest demands. Hainzl offers a variety of options, enabling us to develop and manufacture test benches and systems for a whole range of applications across a number of industries, especially the hydraulics, automotive and aviation sectors. This means we can draw upon the experience gained from earlier applications, where a Hainzl test system was able to make a significant contribution to the development of leading technologies.

R&D TEST BENCHES

DEVELOPMENT & PRODUCTIONS

Through our know-how and experience in test bench technology, we are able to support our customers in the specification of requirements, and the development of the technical basis, by helping to write the initial specification either jointly with, or for, our customers. We have already realised test applications for the following development tests:

- Performance tests
- Function tests
- Tests to verify product specifications
- Durability tests / aging tests
- Impulse tests / stress tests
- Burst tests
- Tightness tests
Our competent and experienced team is able to meet the highest customer demands. A constantly expanding international team of specialised service engineers ensures optimum customer support post system delivery. Customers can call on different service and maintenance options for our test benches and systems, such as telephone support, remote maintenance, on site service, augmented reality support or predictive maintenance systems. The high quality of our products, our flexibility and outstanding service concept make us your reliable partner for test bench requirements worldwide.
SUBSYSTEMS & EQUIPMENT

Apart from complete test bench systems, Hainzl also offers a wide range of products in the mechanical and fluid technical sector in the test bench environment. Tempering of media inside the test chamber, highly accurate pressure control by means of servo axes or automation of complex test systems, are just a few examples. Our expertise in fluid conditioning enables us to control parameters such as pressure, flow rate, temperature, quality or mixing characteristics for a variety of fluids. Our systems can make a significant contribution to our customers’ success, whether in the development of internal combustion engines, racing applications or verification of aircraft turbines.

- Conditioning devices for regulating flow rate, pressure, temperature of different fluids, as well as special modules, such as oil/air separators or vacuum systems.
- Handling systems for fully automated handling of test objects inside the test chamber, as well as external test object manipulation prior and post test sequence.
- Condition monitoring systems for the predictive recognition of system failures or monitoring of system conditions by integrated sensor technology.
- Data management solutions for client-specific archiving of data in databases or cloud based systems. Web applications enable system conditions and actual values to be checked at any time.
- Calibration stations for calibrating test pieces prior to test sequences or delivery.
Test benches and systems for higher standards are manufactured at our 56,000 m² site.