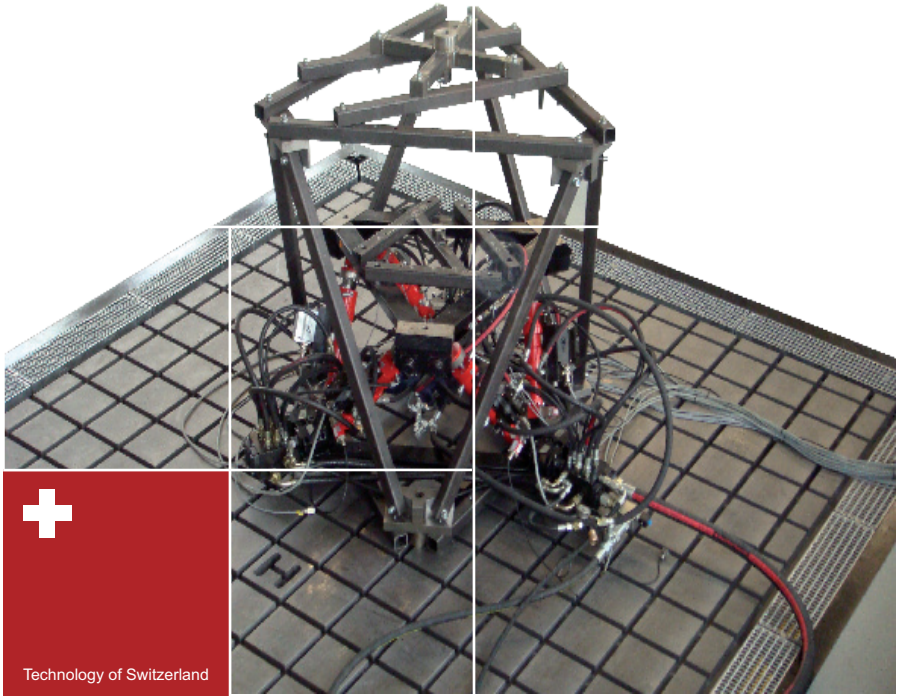
Testing-Center

Individual testing for you



- 1 to 6-axis (6-dof) tests
- Vibration tests
- Test processes according to free drive files
- Force-controlled test processes
- Tests with pressure or force pulsation
- 4 x 4 m swivel foundation up to 40 tons

HAGENBUCH
Hydraulic Systems

Introduction

For 15 years, we have worked with hydraulic drive technology for test benches of all time. During this time, the technology has developed enormously and now constitutes its own special high-tech area. For us, always the overall concept, from understanding the customer's task to commissioning, is a special motivation. Here we have been able to link our know-how in all areas involving hydraulics, innovative force with control technology and electronics.

With the growing scope of this area, our own structure has improved and was ultimately so extensive that we can also provide our intricate technology. That is because, in the end, our product is our priority and it is not always necessary to install a full test bench with the required technical and staffing infrastructure.

During this time, we were able to expand this area and are now able to provide you with high-quality equipment for your engineering.

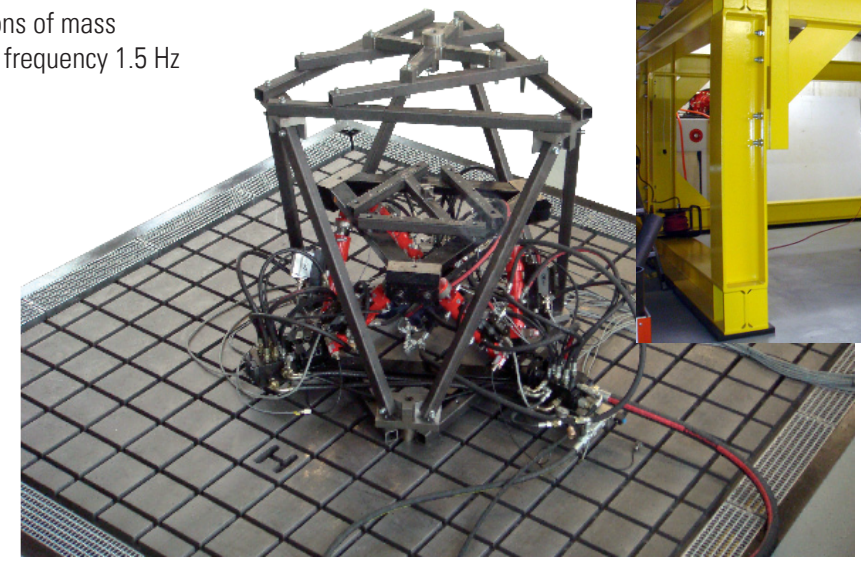
Our services

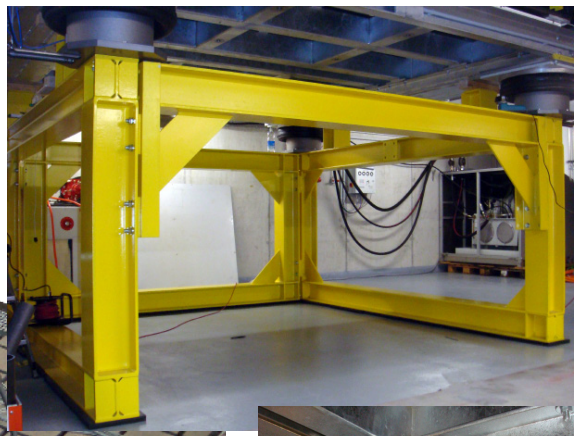
- Developing individual test processes
- Multiple systems with up to 12 axles
- Reformation of free drive files in distance and force
- Channel/force sinus pulsations
- Shaker with acceleration control, up to 250 g and 600 Hz
- Swivel foundation for tests with a machine platen of 4 x 4 metres
- 6 DOF tests on HEXAPOD
- Measurement of material tensions using expanding measurement strip

Infrastructure

Swivel foundation

- Machine 4 x 4 metre
- 40 tons of mass
- Own frequency 1.5 Hz



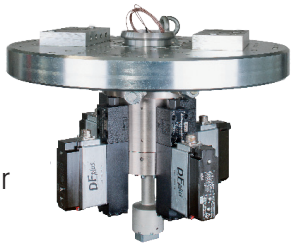


Infrastructure

Hydraulic pressure supply

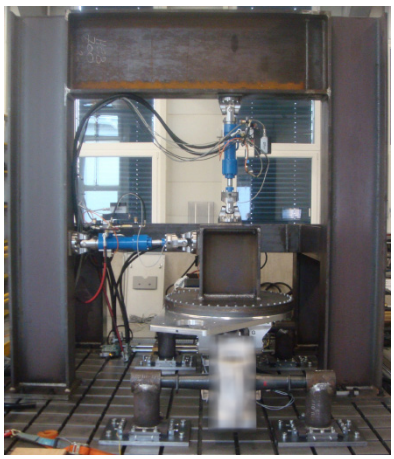
High-performance shaker

- High frequency up to 600 Hz
- Maximum acceleration up to 250 g
- Compact design
- Complete systems including pressure supply and controller



Expanding measurement strips

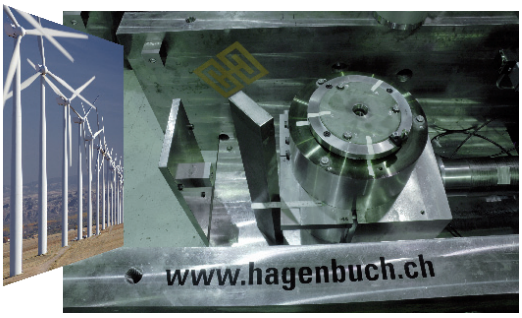
- Portable measurement system Q.brixx with up to 16 insertion modules and complex „test.commander software“, which can be adapted to specific requirements.

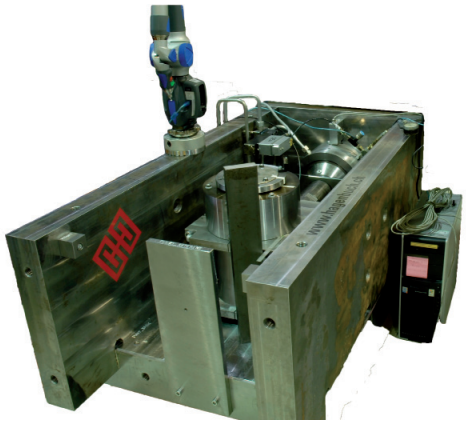


Applications

Test of high-load gears

With up to 200 tons of load, gear parts on this test bench are under stress by wind force turbines. This test bench controls the force pulsation and simultaneously monitors the test subject for changes (slipping of pressure seats, bends, etc.)

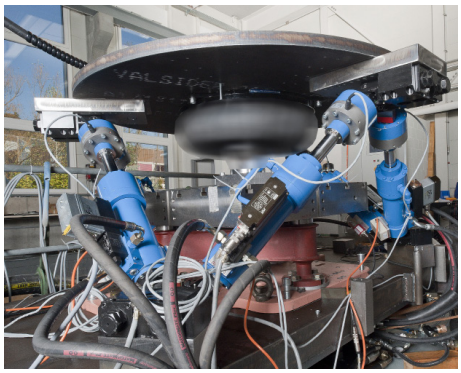




Applications

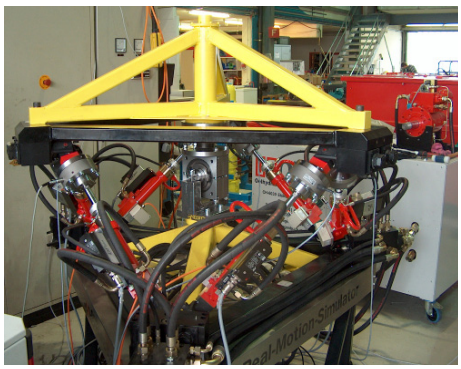
Test of an air spring from railway technology

A wide range of equipment involving hexapods and measurement equipment allows us to quickly and flexibly set up test benches for customer tests. The sample shows an air spring with which characteristics can be measured and implemented for permanent stability tests. Forces and distances can be programmed individually here.



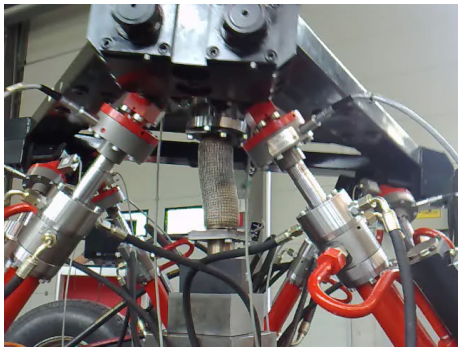
Forces and torques in all degrees of flexibility

The test bench controls all forces in all directions and torques around all axles. The primary goal is the measurement of of complicated component characteristics in different axles, wherein the behaviour of forces and torques are a priority and angle. Force measurement boxes in all drives of the hexapods allow very precise measurement results. The test bench is used as a prototype for a considerably larger and higher-efficiency test bench.



Dynamic tests

The hexapod on a swivel foundation is perfectly suitable for dynamic tests. In this application, our customer uses the dynamics of the test bench for tests of exhaust gas components. Measurements from the field as well as simulation results are directly used as a motion specification for the test processes.



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201608/V03/E