Test benches and measurements – enhancing systems with precise solutions

The smallest details can affect performance and reliability. Optimise your systems for maximum effectiveness – with RUAG Aviation's individually tailored test benches and measurement solutions.

Description

Customised measurement techniques, control systems and sensors developed and implemented by RUAG Aviation. Our test benches meet your specific requirements using state-of-the-art technology in data acquisition and automated control systems. Through careful matching of the instrumentation and associated measurement systems, your development goals are delivered on time and in a cost-efficient manner.

Our services

We provide comprehensive solutions covering all aspects of testing procedures: design, implementation, commissioning and maintenance of test benches, sensors, control systems and graphical user interfaces.

Measurement techniques and control systems

Tailored to your individual requirements, our diverse range of measurement techniques and control systems are adapted to deliver maximum benefit for your specific purposes.

– LabVIEW software for real-time monitoring and automation
– Systems and sensors:
  - Conceptualisation
  - Reverse Engineering
  - Analysis
  - Calibration
– Determination of measurement uncertainties

Sensors

Our state-of-the-art instrumentation ensure the realism and precision in testing conditions.

– Multi-component load cells (force/moment sensors)
  - Design
  - Manufacture
  - Calibration
– Engineering and application of sensors
  e.g. strain gauges, temperature and pressure sensors
– Complete assembly of instrumentation in-house and on-site

Together ahead. RUAG

Realised projects

Test benches for linear actuators and landing gear shock absorbers

Wind tunnel model manipulators and control systems integrating various actuator types

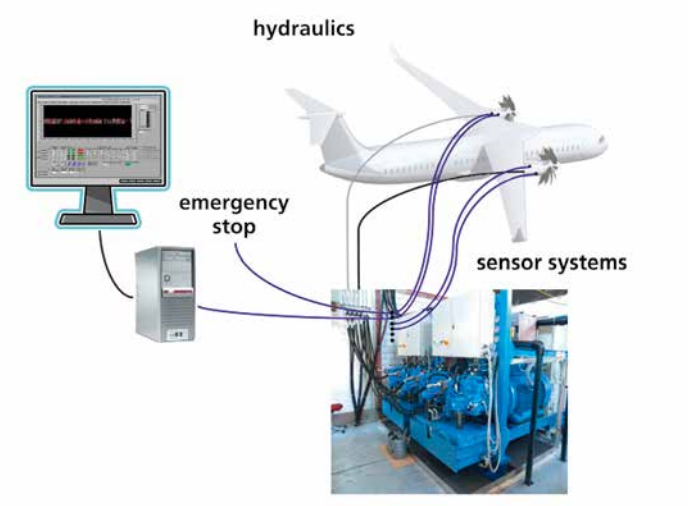
Test bench with shaker for inclinometers

Test bench for controlling pressure containers and pressure sensors

Calibration of unit motors for optical positioning systems (using stepper motor control)

LabVIEW migration and consultancy

Control of hydraulic propeller



Benefits

Short turnaround time

On-time delivery

Cost-efficient

State-of-the-art equipment

Highly experienced team, ready on call

Extensive resources from a single source

Advantages

Our wide range of resources form a one-stop-shop solution, reducing testing time and improving on-time delivery. Our resources include:

– PXI (Real-Time): motion, CAN, DAQ, DI/O, AI/O
– Compact RIO (Real-Time): DI/O, AI/O, RTD; FPGA; EtherCAT
– Compact DAQ (USB) and multifunctional DAQ (USB, PCI)
– RS232: FU, Metronix drive, Maxon EPOS etc.
– GPIB: Mensor pressure sensors, HP24970 etc.
– Electronics / electrics / mechanics / hydraulics / pneumatics
– LabVIEW: Certified Developer / Certified Associate Developer
– Certification according to ISO9001-2000 regulation
– Proven standard processes

Online references

– www.aerodynamics.ch/Control_Systems
– www.aerodynamics.ch/Cosys
– www.aerodynamics.ch/Propcon2

RUAG Aviation | Aerodynamic Department | Schiltwald | P.O. Box 301 | 6032 Emmen | Switzerland
Tel. +41 41 268 38 01 | Fax +41 41 268 38 97 | aerodynamics@ruag.com | **www.aerodynamics.ch**

Legal domicile: RUAG Schweiz AG | Seetalstrasse 175 | P.O. Box 301 | 6032 Emmen | Switzerland

07.13/OS_Test_benches_E