

Mechanical engineering

Design / Development & Realization of specific testing systems



Hydraulic test bench, vertical bending tests on flexible pipes (16 inches, 10 meters long): cryogenic fatigue test on controlled pressure

Offers / expertise

Development

of test fixtures adapted to specific specimen shapes to be installed on our test benches (anchoring for static and dynamic loading, etc.)

Design & assembly

of unique testing rigs for specific needs (examples: combination of pressure / shear loads, liquid nitrogen release bench, ...)

Safe installation

of large test benches in our outdoor test facilities

Management

of innovative benches in our facilities with delivery of a "turnkey" solution without the constraint of an implementation on customer site

From design to operation in our laboratories

Identification of the customer need

Based on specifications

Technical proposal

Solution adapted to the specifications

Engineering

Study, dimensioning, modeling, integration, risk analysis and solutions validation (using SolidWorks CAD software)

Development of the technical files

Manufacturing file, user's guide and instructions, maintenance booklet,...

Commissioning

Assembly, adjustments and acceptance tests

Examples of achievements

- Specific test fixtures on multi-axis servo-hydraulic platform
- Dedicated anchoring system for non-standard specimens
- Fatigue tests benches (multi-station uniaxial tension/compression, bending fatigue...)
- Electromechanical machines for creep testing
- High energy impact test bench 5 kJ
- Benches dedicated to cryogenic activities
- Hydraulic servo-controlled bench for high pressure tests
- Control and regulation system (simple/combined, pressures, mechanical stress, ...)