

Projekte

Proof tests on full scale pot bearings (Test procedures in accordance with AASHTO,BS,EC, and EN)

- Vertical load tests
- Horizontal load tests
- Restoring moment tests
- Wear tests
- Sliding tests

Tests on more than 100 bearings (1995-2003) for different projects in Portugal, Taiwan, Malaysia, Abu Dhabi, Hong Kong, and Dubai.

Proof tests on full scale elastomeric bearings (Test procedures in accordance with BS, EC 8, and EN)

- Vertical load tests (compression and production tests)
- Horizontal load tests (static and dynamic shear stiffness tests)

Tests for different projects in Portugal, Greece and Egypt.

Dynamic tests on large and full scale anti-seismic devices for bridges

- Mechanical working devices ('96 + '99 to '00)
- Hydraulic dampers ('97 to '02)

In-situ measurements

- Vibrations in a coal conditioning building ('97 + '98)
- Vibrations on a church tower ('96)
- Strain/stress on a pressure vessel ('97)

Research on composite (steel/concrete) structures

- Loading capacity of composite beams for bridges ('96 + '97)
- Compression tests on composite columns ('96 + '97)
- Applicability of composite structures to Sway Frames ('02 to '03)

Joint venture project of Studiengesellschaft Stahlanwendung e.V. (D), Centre Technique Industriel de la Construction Metallique (F), University of Pisa (I), University of Liege (B), RWTH Aachen (D) und den Firmen ARBED (Luxembourg) + ELSA LAB. JRC ISPRA (Italien) + LABEIN (Spanien)

Development of unified design rules for steel sheet piles, and introduction to EC 3, Part 5 (ECSC Research Project)

- Compression tests on high length U- and Z-profiles columns ('96)
- Stub column tests on U- and Z-profiles ('96)

Joint venture project of universities RWTH Aachen (D), CRIF Liège (B), Imperial College London (UK), TU Delft (NL) & companies ARBED (Luxembourg) and HOESCH Spundwand (Dortmund).

Research on structural glazing

- Tension, compression and shear tests on components of glazing fastening ('96 + '97)
- Loading behavior of plates under steady state and dynamic loads ('96 to '98)
- Shock tests on plates of noise protection walls for simulating accident situations ('97 + '98 + '00)
- Bending behavior of plates and plate stripes made of laminated safety glass ('02 + '03)
- Shear behavior of drilling cores made of laminated safety glass ('02 + '03)

Loading behavior of slabs under concentrate loads ('96)

Reliability of steel structures

- Prediction of fatigue life of a temporary steel bridge system; experimental and theoretical fracture mechanics analysis ('97)

Research in the field of anchoring in concrete

- Loading behavior of high capacity anchors in concrete; tension, shear, and combined loading tests ('96 + '97)
- Fatigue tests on cold rolled anchoring profiles embedded in concrete ('97 to '99)
- Load carrying behavior of channel anchors under dynamic loading ('99 to '03)

Fatigue tests on parts for the automotive industry - quality control research

- Rotors for motor engine vacuum pumps under rotating moment load ('96 to '03)
- Loading behavior of track rods under tension/compression loads and a temperature of +120 °C ('97)
- Resonance frequencies and fatigue life of track rods ('96 to '99)

Tests for post-tensioning systems

- Dynamic and subsequent static load tests with tendon-anchorage assemblies ('94 to '02)
- Load transfer tests ('95 to '00)

Research on steel fibre reinforced concrete for tunneling and industrial floors

- Flexural toughness tests (ASTM, DBV, JCI, NBN, Ö-Norm & RILEM)
- Compression tests
- Split tensile strength tests