

Dynamic Testing Laboratory

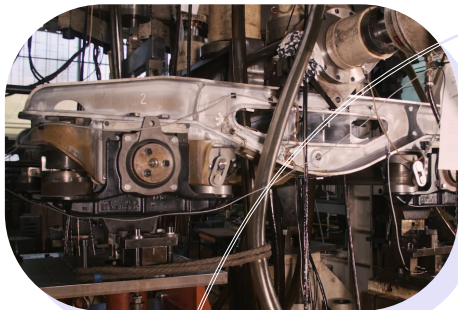


Offered services

- Tests of strength and fatigue life of structures and their parts at the simulation of real operational loading by means of electrohydraulic loading systems (including the simulation of response to operational loading)
- Fatigue tests of structural materials at temperatures up to 600 °C
- Seismic resistance and vibration resistance tests
- Fall tests of products up to the mass of 15 t
- Laboratory strain gauge measurements of uniaxial and plane stresses
- Strain gauge measurements of structures and machines stresses under operational conditions (including measurements on rotating parts of machines, in magnetic field, in corrosive atmosphere, at temperature range from -269 °C to 500 °C)

Technical equipment

- IST Labtronic 8800 56-channel fully digital control system with RS TWR module for the precise reproduction of real measured signals during operation
- Set of servo-cylinders of a loading power from 7 kN to 630 kN and operating stroke from 20 to 250 mm
- Foundation structure of 11.5 x 14.5 m with the Schenck 4000 multi-purpose modular clamping and support system
- Two cushioned clamping blocks, dimensions 4 x 4 and 4 x 8 m, clamping area 5 x 10 m



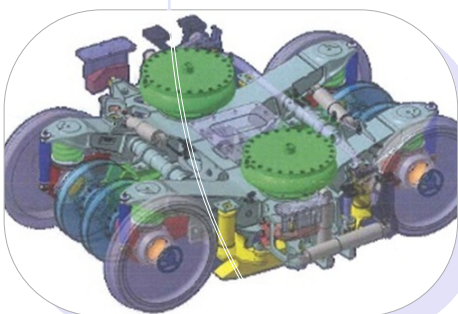
Rail vehicle tests

- Fatigue tests of the wagon bogie frames
- Fatigue tests of the locomotive bogie frames
- Vibration tests of air-conditioning units at locomotives
- Tests of composite drive shafts



Road vehicle tests

- Tests of the bus controlled shock absorbers
- Towing device tests
- Simulation of real operational loading of the Daewoo Avia truck



Research and development projects

- Bogie of electric train unit with inner frame
- Ecobogie - inovative light railway bogie with low forces acting on railroad
- Development of a new modular line of front and taper-front transmissions for industry applications