

1972



2022



AVIATEST Development and Test Centre



AVIATEST Development and Test Centre

AVIATEST Development and Test Centre consists of two buildings with test hangars. The test hangars of AVIATEST are equipped with modern testing and measuring equipment, a field rig complex and load-bearing floor.

Total area of the test hangars is **4000 m²**



AVIATEST Development and Test Centre

was founded in 1972 in Riga, Latvia. For 50 years, AVIATEST specialists conduct static and endurance tests for almost all types of civil aviation aircraft and helicopter airframes. These tests result in structure design improvements and the extension of the aircraft service life. Today, AVIATEST is the only research and testing centre in the Baltic region that has such extensive experience in full-scale bench testing of aircraft equipment.

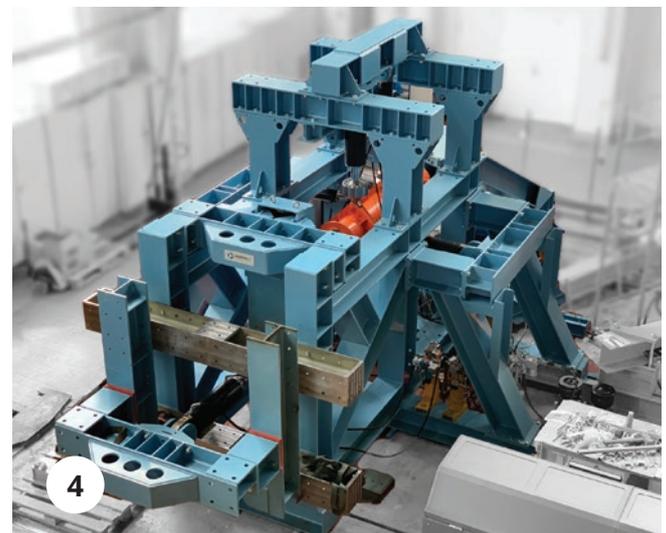
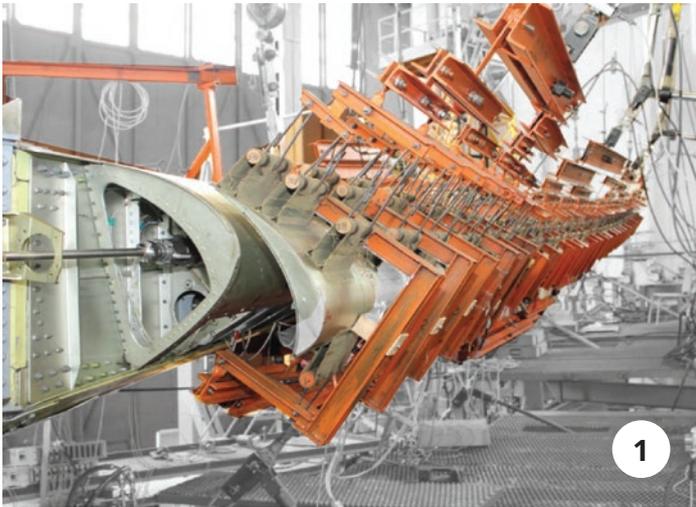
AVIATEST Development and Test Centre specialises in:

- Full scale bench testing of aviation equipment (aircraft, helicopter airframes and their units), airport equipment and various structures.
- Design, manufacturing and supply of specialised aircraft equipment (test rigs).
- Strength calculations of the most important aircraft equipment components made of composite materials.

AVIATEST Development and Test Centre conducts testing from basic samples to full-scale in-situ products. More than 60 highly qualified specialists work in the laboratory of the Development and Test Centre. Modern multi-channel loading systems, testing systems and automated data collection and processing systems are used in the testing process. AVIATEST Centre has implemented dozens of projects in the field of design, manufacture and supply of test equipment, including the successful implementation of unique projects for the design and manufacture of multi-purpose electrically and mechanically closed rigs for the testing of helicopter frame system gearboxes.

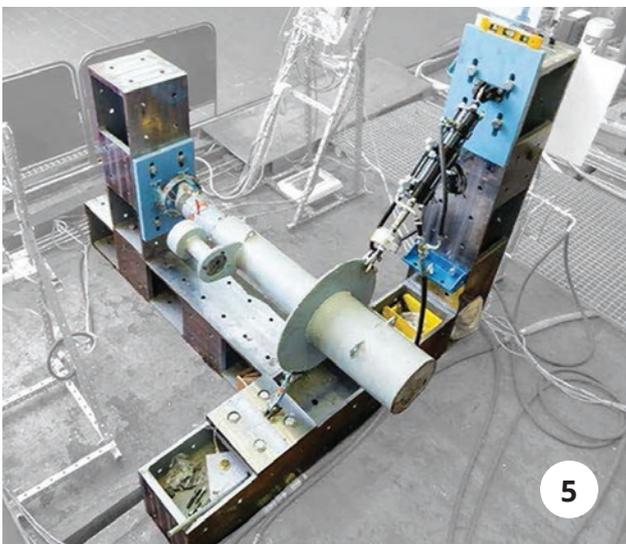
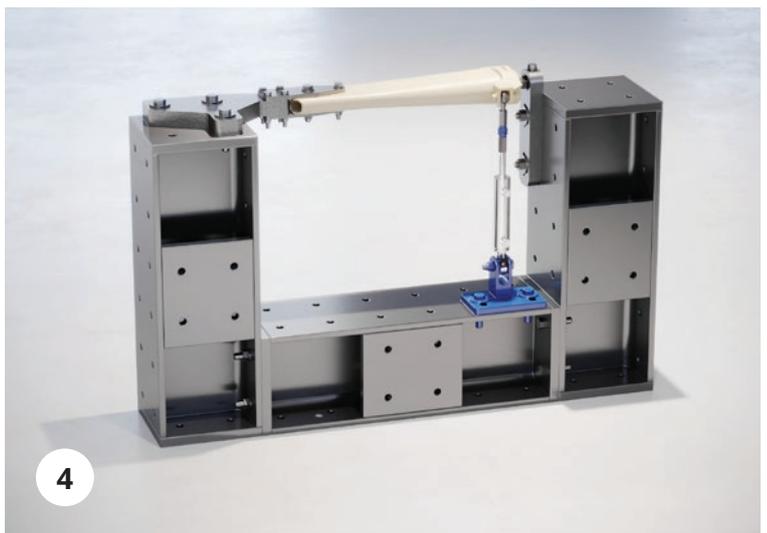
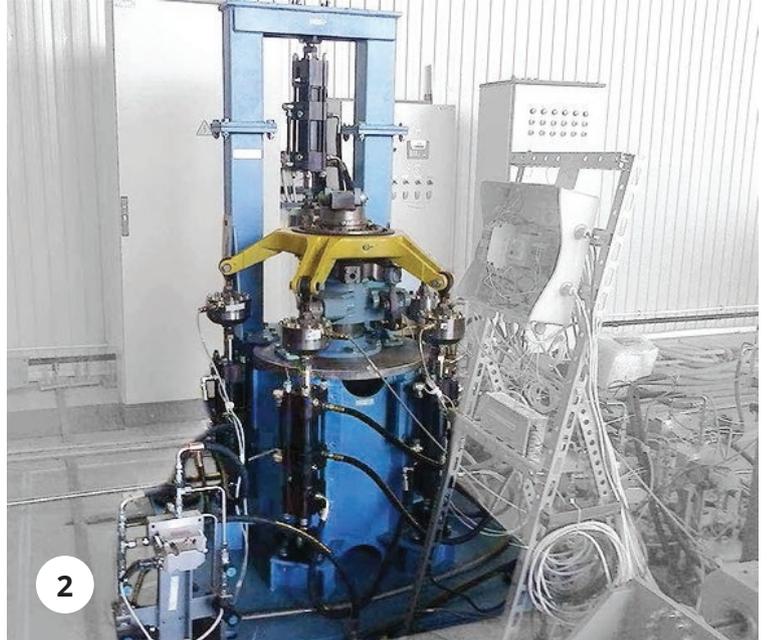


Full-scale test benches for airplanes and their components



1. Test bench for flap/slat system fatigue test
2. Aircraft fuselage certification fatigue tests
3. Test bench for aircraft wing static and fatigue tests
4. Test bench for aircraft pylon testing
5. Fatigue tests of the aircraft wing

Full-scale test benches for helicopters and their components



1. Helicopter fuselage certification fatigue and static tests
2. Test bench for fatigue tests of helicopter swashplate
3. Tail boom fatigue and static tests
4. Test bench for helicopter cuff fatigue tests
5. Test bench for fatigue testing of helicopter engine mounting fittings
6. Test bench for convertible rotor test

Design, manufacturing and supply of specialised aircraft equipment (test rigs)



1

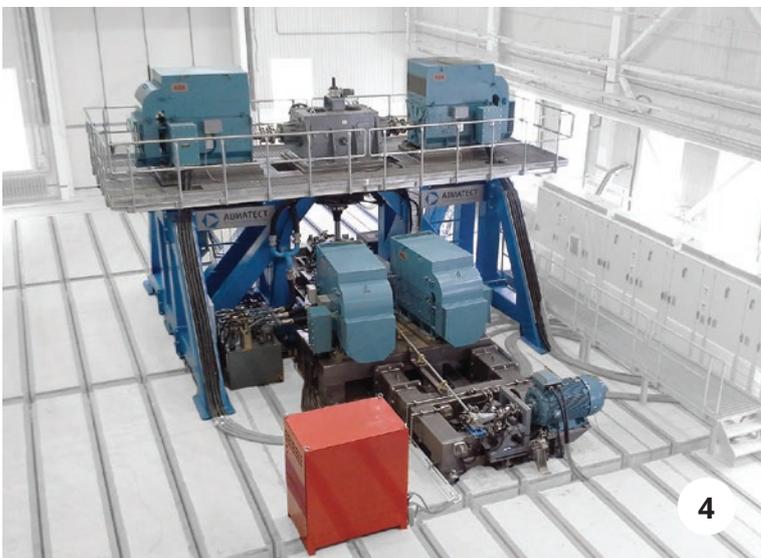
- 1. Universal mechanically closed test bench for coaxial type MGB testst
- 2. Electrically closed test bench for coaxial type MGB tests
- 3. Electrically closed test bench for coaxial type MGB tests
- 4. Universal electrically closed test bench for classic type MGB and TGB tests
- 5. Field test rigs «Iron Bird» for MGB, tail rotor gearbox and transmission tests



2



3



4



5

Sample testing



AVIATEST conducts a wide spectrum of fundamental sample testing



From material to major tests



Level 6
Full-scale



Level 5
Structure



Level 4
Substructures



Level 3
Components

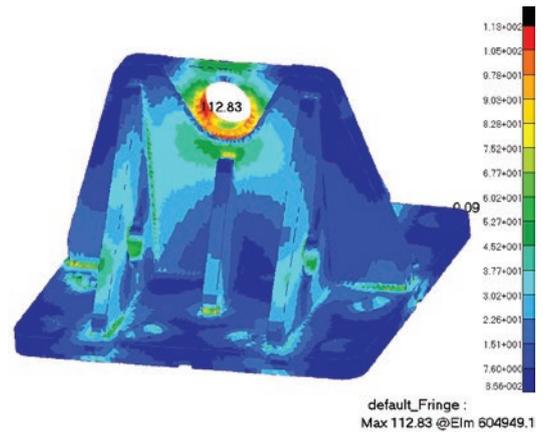


Level 2
Construction elements



Level 1
Materials

Strength calculations



FE modeling, including nonlinear geometrical and material behavior, fastened joints modeling, progressive damage, contact modeling, etc.

Fatigue and damage tolerance analysis.

Residual strength after impact or delamination.

Weight and topological optimization.

Certification

AVIATEST Development and Test Centre provides services for organising and accompanying the international certification of aircraft in accordance with EASA and IAC standards. AVIATEST certifies:

European Certificate for the right to conduct testing of all kinds of aircraft equipment ISO/IEC 17025

European Quality Management Systems (QMS) Certificate ISO 9001

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