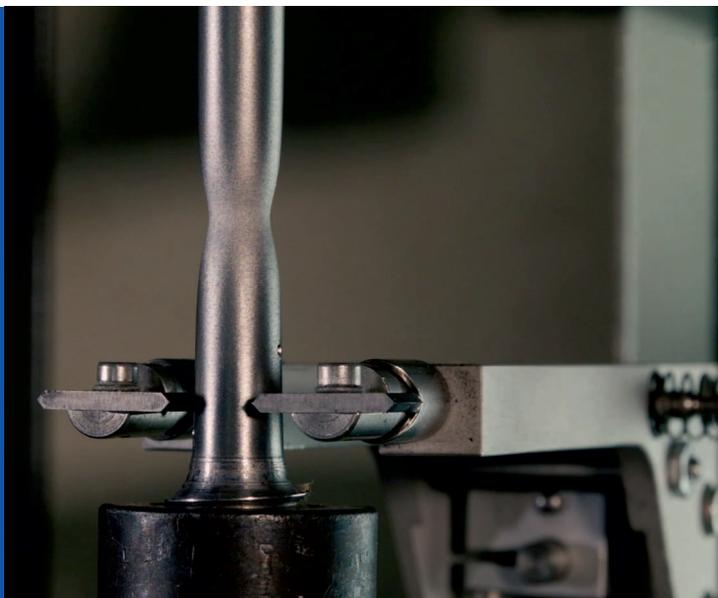


Mechanical Testing

Testing of mechanical properties of metals, alloys, plastics, etc. Testing of welded joints (WPQR) and strength of final parts.

Part of the test facility accredited according to ČSN EN ISO / IEC 17025.



Our Services

- Static and impact load tests
- Tests of welded joints (WPQR)
- Hardness testing of metals and plastics
- Brittle fracture resistance tests
- Measurement of crack growth rate during cyclic loading
- Creep tests, relaxation tests
- Measurement of low- and high-cycle fatigue

Technical equipment

- ZWICK and Schenck-Trebel test machines with a load capacity from 2 N to 250 kN
- WOLPERT, AMSLER and WPM Pulse Impact Hammers
- Vickers Armstrong, Vickers-Brinell - HPO 250, Rockwell RB-1 and HT2003, AMSLER HT 8003 hardness tester, INSTRON Portable hardness tester
- Creep Laboratory is equipped with a testing device for testing at temperatures up to 1100 °C and a load up to 30 kN

References

- Doosan Škoda Power (CZ)
- Doosan Babcock (GB)
- PILSEN STEEL (CZ)
- ŠKODA JS (CZ)
- GE Transportation Systems (USA)
- Sokolovská uhelná (CZ)
- Pentar-ZBA Horní Slavkov (CZ)
- Czech Precision Forge (CZ)
- ŠKODA TVC (CZ)
- ELITEX Machinery Kdyně (CZ)
- ÚJV Řež (CZ)
- ZVVZ (CZ)
- Altstom Power (F)
- BRUSH SEM (CZ)
- TUV Bayern SZA (D)



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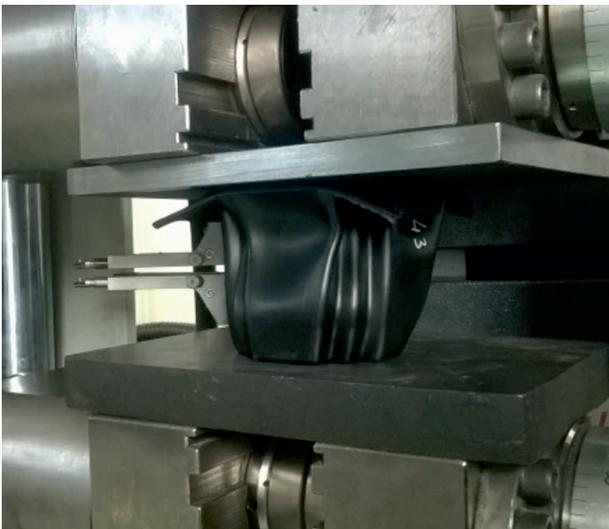
Mechanical properties tests

Material analysis of both supplied materials and final parts:

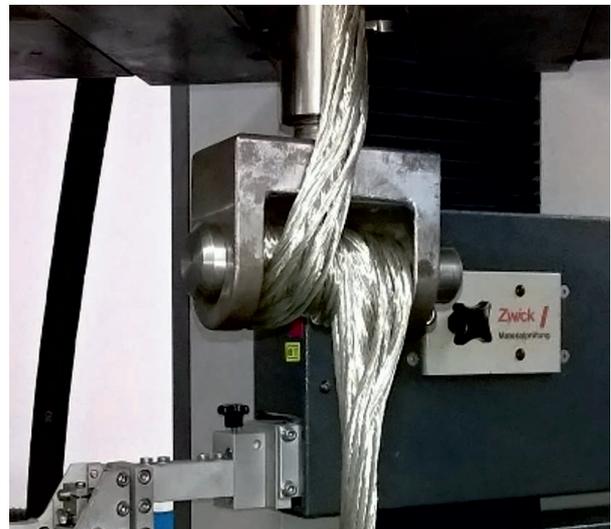
- Testing of mechanical properties
- Comparing of mechanical properties
- Assessment of residual life of materials and components
- Tensile tests
- Notch toughness tests
- Hardness tests
- Fatigue tests
- Creep tests
- Fracture toughness testing



Atypical mechanical tests

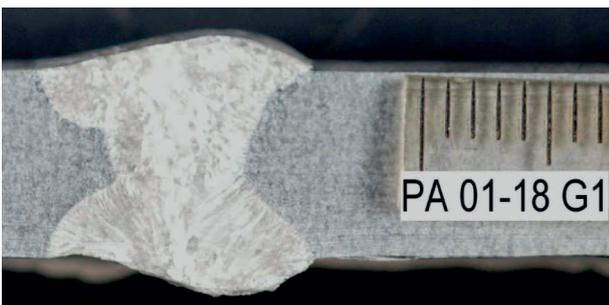


- Testing of final products or semi-products supplied by a customer
- Testing of weldments, pressings, bolted joints, rivet joints
- Testing of composite materials and plastics



- Testing of thin sheets, wires, stranded ropes, slings
- Cooperation with automotive industry – testing of rivet joints in door panels

WPQR evaluation of welded joints



- Evaluation of welded joints: NDT, mechanical and metallographic tests
- Providing WPQR
- Creating pWPS
- Providing required basic and additional material
- Providing supervision body
- Preparing the necessary documentation
- Welding the test joints
- Evaluation of welded joints including NDT, mechanical and metallographic tests
- Issuing the WPQR certificate by the supervision body