



Brake test bench for thermomechanical wheel tests

We put emphasis on investments in new technologies, and we can therefore offer added value in the form of a unique air conditioning system, contactless measurement of wheel rim deformation, automatic real-time data collection, etc. All this with the aim to maximize safety and quality of our work.

The testing equipment used for our tests allows us to meet even above-standard requirements for test execution.

WHAT IS TESTED:

- › Railway wheels according to ČSN EN 13 979-1 Annex A

TEST BENCH BASIC PARAMETERS:

- › Simulated speed of up to 60 km/h
- › Breaking performance of up to 50 kW at constant rotational speed
- › Measurement of wheel deformation of up to 10 mm
- › Configuration options: single-sided or double-sided braking

OPTIONS AND ADVANTAGES:

- › Air ventilation system allowing airflow at the speed of up to 30 km/h
- › Measurement of wheel rim deformation using laser sensors with accuracy of 0,1 mm while running and constantly evaluating and storing data
- › Contactless measurement of wheel rim deformation during braking
- › The sampling frequency of the measurement is read from the incremental rev sensor, which ensures that the wheel deformation value is always read in the same place as done in the last rev
- › Automatic real time data collection and plotting of the deformation curve depending on the rotation angle (detection of wheel ripple during braking)
- › Measurement of internal stress using ultrasonic single-purpose

Contact:

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REFERENCES:

- › EVRAZ | Thermomechanical tests of wheels BA303
- › KLW Wheelco SA
Thermomechanical tests of wheels BA314
- › Maanshan Iron & Steel Co. Ltd
Thermomechanical tests of wheels BA319
- › Vyksa Steel Works
Thermomechanical tests of wheels BA004
- › Bochumer Verein Verkehrstechnik GmbH | Thermomechanical tests of wheels RAFIL