Our motivation...

We are ready to cooperate with you so that we can jointly determine and test new solutions in the wheel-rail contact sector. Contribution to the advancement of integrated rail engineering is our core mission.

... is to convince you!

Knorr-Bremse's ATLAS ("Advanced Test Laboratory for Adhesion Based Systems") is a unique test bench, where our highly skilled and specialized engineers and technicians research, develop and test new methods and equipment, including product validation, dynamic rail mechanics, strain simulations etc.



KNORR-BREMSE

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ATLAS

ADVANCED TEST LABORATORY FOR ADHESION BASED SYSTEMS

Brake systems and bogie equipment tests Competent and innovative

KNORR-BREMSE



Our expertise...

Dynamic testing of track-wheel adhesion in driving and braking operation

- OEM equipment tests: brake control units, mechanical brake components, adhesion management
- Simulation of environmental conditions such as heat, cold, humidity, rain, dirt on the track
- Measurement of all dynamic and static test parameters, analysis and creating test reports
- Development and creation of test equipment

Our mission...

Validation and development of innovative braking systems

- Brake distance measurement under different environmental and operating conditions
- System tests to deliver targeted improvement in adhesion
- Investigation of wear on friction brakes and wheel wear
- Measurement of bogie equipment stress
- We also conduct tests for Knorr-Bremse partners

Our test rig...

"Advanced Test Laboratory for Adhesion Based Systems" – key features:

- 1.4 MW power output for track wheel
- 1.35 MW power output for wheelsets
- Electrodynamic, pneumatic or hydraulic brake operations
- Energy simulation of vehicle during braking or acceleration
- Axle loads up to 30 t
- Velocities up to 350 km/h
- Testing of wheelsets, individual wheels, bogies
- Climate control
- Headwind simulation
- Automated test sequences and analysis
- Simulation and application of moisture, dirt or friction modifiers

